PA-0219 151321 6A

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TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-WO-0036

TO: Dave Turner, Remedial Project Manager, EPA
Philadelphia, Pennsylvania

FROM: John J. Mueck, Jr., Technical Assistance Team, Region III, Wheeling, West Virginia JM

THRU: Joseph B. Carter, ATATL, Region III, JC
Wheeling, West Virginia

THRU: Gerald T. Heston, OSC, EPA Region III
Philadelphia, Pennsylvania

SUBJECT: Trip Report - Westinghouse Sharon NPL Site,
Sharon, Mercer County, Pennsylvania
TDD# 9410-160 PCS# 1160

DATE: November 5, 1994

Background

The Sharon Westinghouse NPL Site is located at 369 Sharpsville Avenue in Sharon, Mercer County, Pennsylvania. For 63 years, Westinghouse Electric Corporation owned and operated this Site where they manufactured, repaired, and shipped electrical transformers and dielectric components. Westinghouse used polychlorinated biphenyls (PCBs) as a dielectric fluid in the manufactured components that they produced at the Site. A number of chemicals were used in the manufacturing process, and various waste streams were generated containing PCBs, metals, and solvents. During operations, materials, including PCB-contaminated oils, were routinely burned in an incinerator located onsite. In 1985, Westinghouse shut down operations and sold some portions of their property to neighboring industries. The Site was proposed for the National Priorities List (NPL) in 1988.

Currently, Westinghouse is performing a Remedial Investigation/ Feasibility Study (RI/FS) at the Site under an Order with the Commonwealth of Pennsylvania. Samples taken during the RI have shown that contaminated soil is present on the Site. EPA determined that off-site soil sampling was necessary to investigate migration of these contaminants into the residential, commercial and industrial properties surrounding the Site.

AR300619

In May 1994, U.S. EPA On-Scene Coordinator (OSC) Heston tasked Roy F. Weston, Inc., Technical Assistance Team (TAT) to collect 31 off-site soil samples for analysis for PCBs, pesticides, metals, cyanide, volatile organics, semi-volatile organics, dioxins, and dibenzo furans.

Sampling Activities

On August 2, 1994, four members of TAT mobilized from the Wheeling, West Virginia office to the Westinghouse Sharon Site to conduct sampling activities. TAT personnel met with EPA Remedial Project Manager (RPM) for the Site, Dave Turner, and EPA Office of Public Affairs (OPA), Pat Gaughan. RPM Turner and OPA Gaughan had prepared access agreements for property owners which allowed EPA to access and sample individual yards. Table 1 in Attachment B of this report lists the sample locations, residents and addresses where access was granted.

During the first day of the sampling event, August 2, 1994, TAT personnel signed in at the guard shack at the Westinghouse property entrance off Sharpesville Avenue and set up a support zone and a sample preparation area inside the Westinghouse Facility gate. TAT used their Emergency Response Vehicle (ERV) as a base of operations and to supply power to the blenders used in preparing dioxin samples. In addition, the office space was used to complete sampling paperwork.

TAT personnel separated into two teams, a sampling team and a sample preparation team, and began sampling activities. A trip blank, a blender cup rinsate blank, and soil samples S01 - S12 were obtained throughout the day. In addition, sample S06 was a double volume sample for laboratory quality assurance (QA). The soil samples were obtained from 3" - 6" depth following the guidelines of the sampling plan with one exception. Stainless steel scoops were used for sample collection instead of dedicated plastic scoops. The stainless steel scoops were decontaminated after each use. Samples were obtained from locations showing minimal recent disturbance and minimal potential for cross-contamination from other sources (ie. vehicles). Where available, residents assisted TAT by showing locations of their properties which had been undisturbed. The sampling team marked the locations of the samples on a field map, measured and logged distances from the sampling point to nearby landmarks, and photographed the sampling locations. The sampling locations are shown on the sample location map in Attachment A of this report.

The sample preparation team followed the guidelines of the sampling plan in preparing the dioxin/dibenzo furan samples with one exception. The samples were first obtained in clean sample jars

then transferred to the stainless steel blending cup for preparation. After blending, the soil sample was returned to the original container. Five soil samples (S01, S04, S06, S07, S09) and one blender cup rinsate blank were prepared for dioxin/dibenzo furan analysis by the end of the day.

On the second day of the sampling event, August 3, 1994, TAT personnel continued and completed sampling and sample preparation activities. Two stainless steel spoon rinsate samples (RB-1, RB-2) and soil samples S13 - S31 were obtained. Of the soil samples collected, ten were comprised of additional volumes for dioxin/dibenzo furan analysis (S15, S16, S17, S20, S24, S27, S28, S29, S30, S31), four were from background locations (S28, S29, S30, S31), sample S16 was a blind duplicate of S15, and sample S23 was a blind duplicate of sample S22.

TAT personnel departed the Site on August 3, 1994 and returned to the Wheeling, WV office on the morning of August 4, 1994. Contract Laboratory Program (CLP) samples were shipped to the CLP designated labs on August 4, 1994. The dioxin/dibenzo furan samples were shipped on August 5, 1994. TAT received the analytical data by October 1994.

Sample Analysis

As shown in Table 1, one trip blank, two scoop rinsate samples, one blender cup rinsate, and 31 soil samples (including two blind duplicates and two extra volume samples) were obtained during the trip. All samples except the trip blank and blender cup rinsate blank were analyzed for total metals, cyanide, volatile organics (VOA), base, neutral and acid extractables (BNA), and pesticides/polychlorinated biphenyls (PEST/PCB) through the Contract Laboratory Program (CLP). The trip blank was analyzed for VOA. Through the CLP, Mack Laboratories, Inc., Pittsburgh, PA performed the total metals and cyanide analyses (see Attachment C). Envirosystems, Inc., Columbia, MD performed the VOA, BNA and PEST/PCB analyses (see Attachment D).

Fifteen of the 31 soil samples and the blender cup rinsate sample were analyzed for isomer specific polychlorinated dibenzo dioxins and polychlorinated dibenzo furans and to determine the toxicity equivalents as 2,3,7,8 tetra chloro dibenzo dioxin (2,3,7,8 TCDD). These analyses were conducted by the Weston Lionville Analytical Laboratory, Lionville, PA (see Attachment E).

Attachments

Attachment A - Sample Location Maps

Attachment B - Sample Information Log

Attachment C - Inorganics Data Validation, Analytical Summary, Traffic Report

Attachment D - Organics Data Validation, Analytical Summary, Traffic Report

Attachment E - Dioxin/Dibenzo furan Data Validation, Analytical Summary, Chain-of-Custody

Attachment A

Sample Location Maps

PAGE OMITTED

Attachment B

Sample Information Log

TABLE 1 WESTINGHOUSE – SHARON PA, SAMPLE INFORMATION LOG EPA/TAT

SAMPLE #	ADDRESS	LOCATION	ANALYSIS					
			DIOXIN	TOTAL METAL	Cn	VOA	BNA	PCB PEST.
TB1	Trip Blank 8/2/94	N/A				x		
RB1	Rinsate, Sampling Scoops	Sample preparation area		x	x	x	x	x
RB2	Rinsate, Sampling Scoops	Sample preparation area		x	x	x	x	x
	Rinsate, Bleader Cap	Sample preparation area	x					
S01	[redacted]	44' south of SE corner of garage, under hedge	x	x	x	x	x	x
S02	[redacted]	6' west of NE corner of garage, 2' to the N		x	x	x	x	x
S03	[redacted]	3' south of SE corner of porch		x	x	x	x	x
S04	[redacted]	16' east of southern porch steps	x	x	x	x	x	x
S05	[redacted]	28' west of SW corner of house		x	x	x	x	x
S06/dbl. vol.	[redacted]	11' south of SE corner of house	x	x	x	x	x	x
S07	[redacted]	2' north of north end of house	x	x	x	x	x	x
S08	[redacted]	4' west of SW corner of house		x	x	x	x	x
S09	[redacted]	SE corner of house	x	x	x	x	x	x
S10	[redacted]	12' north of NE corner of house		x	x	x	x	x
S11	[redacted]	15' west of NW corner of house		x	x	x	x	x
S12	[redacted]	20' west of SW corner of house, along property line		x	x	x	x	x
S13	[redacted]	4' east of center of E side of house		x	x	x	x	x
S14	[redacted]	15' east of NE corner of garage		x	x	x	x	x
S15	[redacted]	3' west of SW corner of porch	x	x	x	x	x	x
S16	Blind duplicate of S15	Blind duplicate of S15	x	x	x	x	x	x
S17	[redacted]	10' east of SE corner of porch	x	x	x	x	x	x
S18	[redacted]	20' east of SE corner of house		x	x	x	x	x
S19/dbl. vol.	[redacted]	15' north SE of SW corner of house		x	x	x	x	x
S20	[redacted]	3' south of center garage SE corner at base of tree	x	x	x	x	x	x
S21	[redacted]	10' east and 20' north of SE corner of building		x	x	x	x	x
S22	[redacted]	30' east of NE corner of house		x	x	x	x	x
S23	Blind duplicate of S22	Blind duplicate of S22		x	x	x	x	x
S24	Yazoo, Penn State Campus	3' west of second large tree west of Shenango on Yazoo	x	x	x	x	x	x
S25	Reno Athletic Field	10' east of westernmost maple on Reno St.		x	x	x	x	x
S26	Alexander Tennis Courts	Northern field, 37' north of center gate		x	x	x	x	x
S27	[redacted]	40' north and 20' east of fire hydrant in western field	x	x	x	x	x	x
S28	[redacted] Masury, OH 44438	10' east of southern water meter cover in front yard	x	x	x	x	x	x
S29	[redacted]	23' north of second long window from the west in the rear	x	x	x	x	x	x
S30	[redacted]	10' west of road, 20' north of driveway	x	x	x	x	x	x
S31	Same owner, 2 mi. north on Ridge Rd.	450' west and 150' south of field entry gate	x	x	x	x	x	x

Attachment C

Inorganics Data Validation, Analytical Summary, Traffic Report

Lockheed
Environmental Systems & Technologies Co.

Environmental Services Assistance Teams
Region 3
1419 Forest Drive, Suite 104
Annapolis, Maryland 21403

Phone: (410) 268-7705
Fax: (410) 268-8472

DATE: SEPTEMBER 23, 1994

SUBJECT: INORGANIC DATA VALIDATION CASE 22533
SITE: WESTINGHOUSE SHARON

FROM: for SHOBHA BODDU HP
INORGANIC DATA REVIEWER

MAHBOOBEH MECANIC MM
SENIOR OVERSIGHT CHEMIST

TO: SUSANNE STEVENS
ESAT ACTING REGIONAL PROJECT OFFICER

THROUGH: DALE S. BOSHART DSB
ESAT TEAM MANAGER

OVERVIEW

The set of samples for Case 22533 consisted of thirty-three (33) soil samples and two (2) associated rinsate blanks. Included in the sample set were two (2) field duplicate pairs. The samples were analyzed by Mack Laboratories (MACK) for total metals and cyanide (CN) according to the Contract Laboratory Program (CLP) Routine Analytical Services (RAS) Statement of Work (SOW) ILM03.0.

The Chemical Health Advisory Level was exceeded for the cadmium (Cd) and lead (Pb) analytes in several samples. The Regional Project Manager (RPM) was notified. See Table 4 for details.

SUMMARY

The samples were analyzed under two (2) Sample Delivery Groups (SDGs) and the data validation was also performed on an SDG basis.

All analytes except antimony (Sb) and selenium (Se) in SDG MCRS73 were successfully analyzed in all samples. Areas of concern with respect to data usability are listed below according to the seriousness of the problem.

MAJOR PROBLEM

The Contract Required detection Limit (CRDL) standard recoveries fell below 50% for the Sb and Se analytes in SDG MCRS73. The quantitation limits in the affected samples are unusable and have been qualified "R".

MINOR ISSUES

The rinsate (RB), preparation (PB) and continuing calibration (CCB) blanks had reported results greater than the Instrument Detection Limit (IDL) for the analytes listed below. The reported results which are less than five times (< 5x) the blank concentrations may be biased high and have been qualified "B".

SDG	Blank Type	Analyte(s)
MCRS57	RB	cadmium (Cd), calcium (Ca), mercury (Hg), nickel (Ni), sodium (Na), zinc (Zn)
	PB (Soil)	potassium (K)
	PB (Aqueous)	Ca, Hg, Na
	CCB	copper (Cu), Ni
MCRS73	RB	Cd, Ca, Cu, Pb, Hg, Ni, Zn
	PB	Na

The matrix spike recovery was high and the CRDL standard recovery was extremely low for the Se analyte in SDG MCRS73, resulting in opposing bias effects. The reported results which are < 2x CRDL for this analyte are estimated and have been qualified "J".

The matrix spike recoveries were low for the Sb and arsenic (As) analytes for the soil samples in SDG MCRS57 and for the Sb analyte in SDG MCRS73. The quantitation limits and reported results for these analytes may be biased low and have respectively been qualified "UL" and "L", unless superseded by the "R" qualifier.

The soil matrix spike recovery was high for the Hg and Se analytes in SDG MCRS57. The reported results for these analytes in the affected samples may be biased high and have been qualified "K", unless superseded by the "B" qualifier.

The CRDL standard recoveries were high for the analytes given below. The reported results which are < 2x CRDL may be biased high and have been qualified "K", unless superseded by the "B" qualifier.

SDG	Analytes
MCRS57	Cd, Cu, Ni, Se
MCRS73	Cd, Ni

The CRDL standard recoveries were low for the analytes given below. The reported results which are < 2x CRDL and quantitation limits for these analytes may be biased low and have been qualified "L" and "UL", respectively.

SDG	Analytes
MCRS57	Sb, As, chromium (Cr)
MCRS73	Cu

The analytical spike recovery was low for the thallium (Tl) analyte in sample MCRS70 of SDG MCRS57. The quantitation limit for this analyte in this sample may be biased low and has been qualified "UL".

The continuing calibration blanks had negative results with absolute values greater than the IDL for the aluminum (Al) and K analytes in SDG MCRS57, and Tl analyte in SDG MCRS73. The quantitation limits for these analytes which have negative raw data results may be biased low and have been qualified "UL".

NOTES

The laboratory marked the sample results for the Pb, Hg and CN analytes in SDG MCRS57, and the CN analyte in SDG MCRS73 with a "*" denoting laboratory duplicate results outside the contractual control limits (20% RPD, ± CRDL). Since the technical control limits for the soil samples (35% RPD, ±2xCRDL) were not exceeded for these analytes, no data were qualified during validation.

The laboratory did not account for the 10-fold dilution while reporting the result for the Fe analyte on the Form I for sample MCRS67 (SDG MCRS57). This discrepancy has been rectified during validation.

The results for the field duplicate pairs were within the technical control limits except for the analytes listed in Table 5. Because there are no criteria established in Region III for field duplicate precision, no data were qualified.

The analytical spike recoveries were high for the Pb and Tl analytes in several samples in SDG MCRS57 and for the Se and Tl analytes in SDG MCRS73. These analytes were not detected above the IDL in these samples. Because high recoveries do not affect quantitation limits, no action was taken.

Soil sample results are calculated on the basis of the raw data values (in ug/L), the gram weight of sample used, the volume of the digestate, and the % solids according to the following equation:

$$mg/Kg = \frac{(\text{raw value, ug/L})\ (\text{digestate volume, L})}{(\text{weight, g})\ (\%\ \text{solids}/100)}$$

To obtain quantitation limit, insert the IDL (Form X) for the raw value; refer to Form XIII to obtain each sample preparation weight and volume used. The quantitation limits thus obtained are specific for each sample and preparation method.

The data were reviewed in accordance with the National Functional Guidelines for Evaluating Inorganic Analyses (IM2 Level), with modifications for use within Region III.

INFORMATION REGARDING REPORT CONTENT

Table 1A is a summary of qualifiers added to the results of the laboratory during validation.

ATTACHMENTS

TABLE 1A	SUMMARY OF QUALIFIERS ON DATA SUMMARY AFTER DATA VALIDATION
TABLE 1B	CODES USED IN COMMENTS COLUMN
TABLE 2	GLOSSARY OF DATA QUALIFIER CODES
TABLE 3	DATA SUMMARY FORM
TABLE 4	SAMPLES EXCEEDING THE CHEMICAL HEALTH ADVISORY LIMITS
TABLE 5	SUMMARY OF FIELD DUPLICATE RESULTS
APPENDIX A	RESULTS REPORTED BY LABORATORY FORM Is
APPENDIX B	SUPPORT DOCUMENTATION

DCN: SB409A03.WHS

TABLE 1A
SUMMARY OF QUALIFIERS ON DATA SUMMARY FORM AFTER DATA VALIDATION

ANALYTE	SDG	SAMPLES AFFECTED+	POSITIVE VALUES	NON-DETECTED VALUES	BIAS	COMMENTS*
Al	MCRS57	70,81		UL	Low	CCN(-167 µg/L)
Sb	MCRS57	70,81		UL	Low	CRL(79.2%,53.3%)
		57-60		UL	Low	CRL(79.2%,53.3%) MSL(70.6%)
		61-69,71,72	L	UL	Low	CRL(81.7%) MSL(70.6%)
	MCRS73	All samples		R	Extr. Low	CRE(43.3%) MSL(43.0%)
As	MCRS57	70,81		UL	Low	CRL(77.0%)
		All soil samples	L		Low	MSL(64.5%)
Cd	MCRS57	All soil samples except 57,60,66, 68,71	B		High	RB(12.0 µg/L)
		57,60,66,68,71	B		High	RB(12.0 µg/L) CRH(120%,120%
	MCRS73	73,74,77-79,82,83	B		High	RB(12.0 µg/L)
		75,76,84-89,91	B		High	RB(12.0 µg/L) CRH(120%,120%)
Ca	MCRS57	60,66	B		High	RB(1300 µg/L)
		70,81	B		High	PB(344 µg/L)
	MCRS73	75,88-91	B		High	RB(1300 µg/L)
Cr	MCRS57	70,81		UL	Low	CRL(80.0%)
Cu	MCRS57	81	B		High	CCB(14.0 µg/L) CRH(140%,124%)
	MCRS73	88,90,91	B		High	RB(12.0 µg/L) CRL(78.0%,84.0%)
		89	B		High	RB(12.0 µg/L)
Pb	MCRS73	88-90	B		High	RB(51.2 µg/L)

+ All samples begin with the prefix MCRS.
* See explanation of Comments on Table 1B.

TABLE 1A
SUMMARY OF QUALIFIERS ON DATA SUMMARY FORM AFTER DATA VALIDATION

ANALYTE	SDG	SAMPLES AFFECTED+	POSITIVE VALUES	NON-DETECTED VALUES	BIAS	COMMENTS*
Hg	MCRS57	57,59-66,69,71	B		High	RB(0.5 µg/L) MSH(130%)
		70,81	B		High	PB(0.2 µg/L)
		58,67,68,72	K		High	MSH(130%)
	MCRS73	73,75-80,82,85,90, 91	B		High	RB(0.50 µg/L)
Ni	MCRS57	57,60,62,66,68,71	B		High	RB(19.0 µg/L)
		70,81	B		High	CCB(23.0 µg/L) CRH(118%,126%)
	MCRS73	80,84-91	B		High	RB(19.0 µg/L) CRH(126%,114%)
		76,78,82,83	B		High	RB(19.0 µg/L)
K	MCRS57	All soil samples	B		High	PB(642 mg/Kg)
		70,81		UL	Low	CCN(-4590 µg/L)
Se	MCRS57	61,64,66,67,69,72	K		High	MSH(159%) CRH(136%)
	MCRS73	All samples except 79,80,86		R	Extr. Low	CRE(18.0%)
		79,80,86	J			MIX(127%,18.0%)
Na	MCRS57	All soil samples	B		HIGH	RB(1070 µg/L)
		70,81	B		HIGH	PB(718 µg/L)
	MCRS73	All samples	B		HIGH	PB(286 mg/Kg)
Tl	MCRS57	70		UL	LOW	ANL(83.0%)
	MCRS73	73,76-78,80,82-84, 88		UL	LOW	CCN(-6.0 µg/L)
Zn	MCRS57	57,60-63,65-69,71, 72	B		High	RB(2140 µg/L)
	MCRS73	All samples	B		High	RB(2140 µg/L)

+ All samples begin with the prefix MCRS.
* See explanation of Comments on Table 1B.

TABLE 1B

CODES USED IN COMMENTS COLUMN

CCN = The continuing calibration blank had a negative result with absolute value greater than the IDL (the result is in parenthesis). The quantitation limits may be biased low.

CRL = The CRDL standard recovery was low (< 90%) [% recovery is in parenthesis]. The reported results which are < 2x CRDL and quantitation limits may be biased low.

MSL = The matrix spike recovery was low (30% - 75%) [% recovery is in parenthesis]. The reported results and quantitation limits may be biased low.

CRE = The CRDL standard recovery was extremely low (< 50%) [% recovery is in parenthesis]. The quantitation limits are unusable.

RB = The rinsate blank had a result > IDL (the result is in parenthesis). The reported results which are < 5x the blank concentration may be biased high.

CRH = The CRDL standard recovery was high (> 110%) [% recovery is in parenthesis]. The reported results which are < 2x CRDL may be biased high.

CCB = The continuing calibration blank had a result > IDL (the result is in parenthesis). The reported results which are < 5x the blank concentration may be biased high.

PB = The preparation blank had a result > IDL (the result is in parenthesis). The reported results which are < 5x the blank concentration may be biased high.

MIX = The matrix spike recovery was high (> 125%) and the CRDL standard recovery was extremely low (< 50%) [% recoveries are in parenthesis]. The reported results which are < 2x CRDL estimated.

ANL = The analytical spike recovery was low (< 85%) [% recovery is in parenthesis]. The quantitation limits may be biased low.

TABLE 2

GLOSSARY OF DATA QUALIFIER CODES (INORGANIC)

CODES RELATED TO IDENTIFICATION
(confidence concerning presence or absence of analytes):

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

(NO CODE) = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

CODES RELATED TO QUANTITATION
(can be used for both positive results and sample quantitation limits):

J = Analyte Present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

[] = Analyte present. As values approach the IDL the quantitation may not be accurate.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

OTHER CODES

Q = No analytical result.

+ = Result reported from dilution. Quantitation limit is elevated.

TABLE 4

SAMPLES EXCEEDING THE CHEMICAL HEALTH ADVISORY LEVELS

SDG MCRS57
(µg/L)

Analyte	Advisory Limit	Sample	Concentration
Cd	8	MCRS70	12.0
Pb	20	MCRS70	35.1
		MCRS81	51.2

SDG MCRS57
(mg/Kg)

Analyte	Advisory Limit	Sample	Concentration
Pb	500	MCRS64	595
		MCRS65	785
		MCRS67	698
		MCRS69	698
		MCRS72	1120

SDG MCRS73
(mg/Kg)

Analyte	Advisory Limit	Sample	Concentration
Pb	500	MCRS73	525
		MCRS74	567
		MCRS77	3380
		MCRS78	2310
		MCRS79	870
		MCRS82	530
		MCRS83	817

TABLE 5

FIELD DUPLICATE RESULTS OUTSIDE CRITERIA

Criteria for soil samples: 35% RPD, ± 2x CRDL

SDG: MCRS73

Analyte	Concentration (mg/Kg) MCRS77	MCRS78	RPD
Ba	894	542	49.0
Ca	14200	31300	75.2
Mg	3890	7850	3960+

RPD = Relative Percent Difference
\+ = Difference in mg/Kg instead of RPD.

DATA SUMMARY FORM: INORGANICS
TABLE - 3
WATER SAMPLES
(ug/L)

Site Name: WESTINGHOUSE SHARON

Case #: 22533 Sampling Date(s): 08/03/94

SDG #: HCRS57

◆ Due to dilution, sample quantitation limit is affected
See dilution table for specifics

CRDL	ANALYTE	Sample No.		Sample No.	
		Dilution Factor		Dilution Factor	
		Location		Location	
		RINSATE BLANK		RINSATE BLANK	
200	Aluminum		UL		UL
60	Antimony		UL		UL
10	*Arsenic		UL		UL
200	Barium				
5	Beryllium				
5	*Cadmium	12.0			
5000	Calcium	[531]	B	[1300]	B
10	*Chromium		UL		UL
50	Cobalt				
25	Copper			[12.0]	B
100	Iron	[77.0]			
3	*Lead	35.1		51.2	
5000	Magnesium				
15	Manganese	[10.0]			
0.2	Mercury	0.50	B	0.30	B
40	*Nickel	[19.0]	B	[15.0]	B
5000	Potassium		UL		UL
5	Selenium				
10	Silver				
5000	Sodium	[874]	B	[1070]	B
10	Thallium		UL		
50	Vanadium				
20	Zinc	1560		2140	
10	*Cyanide				

CRDL = Contract Required Detection Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

DATA SUMMARY FORM: INORGANICS

TABLE - 3

SOIL SAMPLES

(mg/Kg)

Site Name: WESTINGHOUSE SHARON

Case #: 22533 Sampling Date(s): 08/02/94

SDG #: MCRS57

* Due to dilution, sample quantitation limit is affected
See dilution table for specifics

Sample No.	MCRS57		MCRS58		MCRS59		MCRS60		MCRS61		MCRS62		MCRS63		MCRS64		MCRS65		MCRS66	
Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
% Solids	93.0		79.5		91.6		78.2		93.6		79.3		80.3		78.2		87.5		81.8	
Location	S01		S02		S03		S04		S05		S06		S06_DUP		S07		S08		S09	
											DUPLICATE OF MCRS63		DUPLICATE OF MCRS62							
CRDL ANALYTE																				
40 Aluminum	13400		14400		17500		12300		13500		13300		13700		11800		10600		8850	
12 Antimony		UL		UL		UL		UL		UL		UL	25.4	L		UL		UL		UL
2 Arsenic	10.2	L	13.6	L	12.6	L	19.1	L	24.9	L	19.9	L	15.3	L	24.2	L	16.7	L	26.6	L
40 Barium	116		181		244		91.4		146		163		163		166		255		93.6	
1 Beryllium	1.1		1.7		1.9				1.1		1.3		1.2		(1.0)		(0.88)			
1 Cadmium	1.9	B	3.9	B	3.9	B	2.0	B	3.6	B	4.3	B	3.9	B	4.8	B	2.4	B	2.0	B
1000 Calcium	12000		29800		36400		1470	B	6940		17000		17000		3170		3540		1360	B
2 Chromium	23.6		26.9		33.6		22.8		29.0		22.2		22.7		24.6		30.8		27.1	
10 Cobalt	(9.3)		(7.9)		(8.6)		(8.9)		10.8		(6.6)		(6.4)		(7.1)		(9.5)		(8.0)	
5 Copper	31.2		49.3		48.4		46.2		82.7		40.4		48.3		34.9		29.5		34.0	
20 Iron	26400		27100		24800		27100		25800		23400		23300		24700		29000		28700	
0.6 *Lead	114		296		383		422		347		260		249		595		785		440	
1000 Magnesium	3290		5350		6850		2150		2500		3250		3210		1890		2260		1960	
3 Manganese	867		1560		1210		755		1130		958		1020		618		681		616	
0.1 Mercury	0.16	B	1.1	K	0.33	B	0.23	B	0.21	B	0.13	B	0.31	B	0.38	B	0.23	B	0.43	B
8 Nickel	20.0	B	24.7		24.8		20.4	B	23.7		23.7	B	24.7	B	26.6		23.3		18.9	B
1000 Potassium	1940	B	1960	B	2200	B	2030	B	1630	B	1800	B	1770	B	(1050)	B	1260	B	(925)	B
1 Selenium									1.4	K					1.5	K			1.3	K
2 Silver																				
1000 Sodium	(266)	B	(525)	B	(400)	B	(195)	B	(231)	B	(295)	B	(313)	B	(206)	B	(259)	B	(227)	B
2 Thallium																				
10 Vanadium	29.9		21.0		22.7		31.3		26.4		19.7		23.4		23.5		25.9		25.3	
4 Zinc	913	B	3400		2530		854	B	1750	B	1940	B	1850	B	2840		1500	B	1190	B
0.5 Cyanide	0.65		0.63		0.71		0.83		1.8		0.63				0.64		1.0		0.73	

CRDL = Contract Required Detection Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

DATA SUMMARY FORM: INORGANICS

TABLE - 3

SOIL SAMPLES

(mg/Kg)

Site Name: WESTINGHOUSE SHARON

Case #: 22533 Sampling Date(s): 08/02/94 - 08/03/94

SDG #: MCRS57

+ Due to dilution, sample quantitation limit is affected
See dilution table for specifics

CRDL	ANALYTE	MCRS67		MCRS68		MCRS69		MCRS71		MCRS72	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0	
	% Solids	88.8		94.1		76.9		81.2		87.2	
	Location	S10		S11		S12		S13		S14	
40	Aluminum	9790		11000		16600		12400		17800	
12	Antimony		UL		UL		UL		UL		UL
2	Arsenic	24.9	L	18.6	L	34.9	L	16.9	L	19.4	L
40	Barium	223		259		268		86.3		328	
1	Beryllium	(0.89)		(0.85)		2.3				2.1	
1	Cadmium	3.8	B	2.1	B	4.9	B	1.7	B	3.9	B
1000	Calcium	6150		3530		9300		3170		34200	
2	Chromium	39.9		21.3		60.8		22.2		30.3	
10	Cobalt	(7.6)		(7.9)		16.2		(9.0)		(8.3)	
5	Copper	109		64.4		92.2		21.7		73.2	
20	Iron	35000		26600		36100		24300		27100	
0.6	*Lead	698		476		698		156		1120	
1000	Magnesium	1960		2130		1510		2270		5230	
3	Manganese	760		635		670		673		1800	
0.1	Mercury	0.79	K	0.58	K	0.26	B	0.25	B	0.76	K
8	Nickel	25.4		19.1	B	34.5		21.5	B	23.4	
1000	Potassium	1230	B	1330	B	1330	B	1920	B	1790	B
1	Selenium	2.1	K			2.0	K			1.4	K
2	Silver										
1000	Sodium	(306)	B	(287)	B	(489)	B	(295)	B	(557)	B
2	Thallium										
10	Vanadium	23.6		23.6		42.5		23.9		23.9	
4	Zinc	1800	B	1080	B	2180	B	897	B	1360	B
0.5	Cyanide	1.1				1.0				0.75	

CRDL = Contract Required Detection Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

DATA SUMMARY FORM: INORGANICS

TABLE - 3

SOIL SAMPLES

(mg/Kg)

Site Name: WESTINGHOUSE SHARON

Case #: 22533 Sampling Date(s): 08/03/94

SDG #: MCRS73

* Due to dilution, sample quantitation limit is affected
See dilution table for specifics.

Sample No.	MCRS73		MCRS74		MCRS75		MCRS76		MCRS77		MCRS78		MCRS79		MCRS80		MCRS82		MCRS83	
Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
% Solids	88.4		88.3		89.0		79.8		85.3		85.7		71.9		83.1		83.7		85.3	
Location	S15		S16		S17		S18		S19		S19_DUP		S20		S21		S22		S23	
									DUPLICATE OF MCRS78		DUPLICATE OF MCRS77									
CRDL ANALYTE																				
40 Aluminum	12000		11500		11500		8830		8670		10600		11500		10300		13800		26400	
12 Antimony		R		R		R		R		R		R		R		R		R		R
2 Arsenic	26.9		28.6		23.4		18.8		21.9		18.3		18.8		29.0		21.2		19.8	
40 Barium	156		157				143		894		562		375		196		700		646	
1 Beryllium	1.3		1.1				[0.99]		[0.88]		1.1		[1.1]		1.7					
1 Cadmium	3.4	B	3.6	B	1.1	B	2.2	B	4.2	B	4.6	B	4.4	B			6.5	B	6.1	B
1000 Calcium	2960		2710		[1230]	B	4910		14200		31300		10500		31000		7960		14000	
2 Chromium	26.0		27.1		18.5		24.1		43.6		34.3		40.2		19.3		31.1		33.0	
10 Cobalt	[9.3]		[9.0]		[9.8]		[8.4]		[8.8]		[7.3]		[8.8]		[3.9]		[11.0]		[10.0]	
5 Copper	38.9		40.1				48.1		42.5		40.3		71.3		18.5		93.9		100	
20 Iron	30700		27100		36000		22300		29200		23300		28100		13600		23900		22700	
0.6 *Lead	525		567		105		353		3380		2310		870		96.3		530		817	
1000 Magnesium	1950		1820		[2360]		1850		3890		7850		2550		5460		2560		5300	
3 Manganese	816		841		517		521		1090		881		846		570		843		938	
0.1 Mercury	0.51	B	1.1		0.51	B	0.54	B	0.21	B	0.29	B	0.35	B	0.12	B	0.36	B	0.76	
8 Nickel	21.8		22.0		22.3		22.1	B	23.0		20.1	B	36.9		15.4	B	22.0	B	19.8	B
1000 Potassium	1140		[826]		1430		[975]		[878]		[952]		[1280]							
1 Selenium		R		R		R		R		R		R	1.4	J	1.8	J		R		R
2 Silver																				
1000 Sodium	[366]	B	[377]	B	[345]	B	[422]	B	[429]	B	[510]	B	[647]	B	[626]	B	[480]	B	[442]	B
2 Thallium		UL						UL		UL		UL				UL		UL		UL
10 Vanadium	27.3		25.8		26.0		19.9		17.9		17.2		27.5		14.0		23.7		24.6	
4 Zinc	1970	B	2160	B	286	B	1370	B	1270	B	1240	B	2230	B	205	B	1700	B	1690	B
0.5 Cyanide									0.59		0.76						0.78			

CRDL = Contract Required Detection Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

DATA SUMMARY FORM: INORGANICS
TABLE - 3
SOIL SAMPLES
(mg/Kg)

Site Name: WESTINGHOUSE SHARON

Case #: 22533 Sampling Date(s): 08/03/94

SDG #: HCRS73

+ Due to dilution, sample quantitation limit is affected. See dilution table for specifics.

	Sample No.	HCRS84		HCRS85		HCRS86		HCRS87		HCRS88		HCRS89		HCRS90		HCRS91					
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0					
	% Solids	90.0		84.6		84.7		86.0		79.6		87.0		80.2		75.9					
	Location	S24		S25		S26		S27		S28		S29		S30		S31					
CRDL	ANALYTE																				
40	Aluminum	7900		9690		6260		13200		10500		11700		12200		15700					
12	Antimony		R		R		R		R		R		R		R		R				
2	Arsenic	9.6		13.0		23.2		11.2		18.3		12.9		10.4		12.2					
40	Barium	63.5		101		97.3		122		(47.2)		68.0		54.8		60.1					
1	Beryllium					1.2		1.2													
1	Cadmium	1.2	B	1.8	B	(0.96)	B	1.2	B	(1.0)	B	(0.92)	B			(1.1)	B				
1000	Calcium	4840		4180		3280		19300		1460	B	(963)	B	(491)	B	(311)	B				
2	Chromium	20.2		22.7		14.4		16.7		20.6		15.2		14.4		16.6					
10	Cobalt	(5.8)		(7.1)		(7.8)		(7.2)		(10.3)		(9.4)		(7.1)		13.7					
5	Copper	18.7		34.9		31.6		27.0		10.8	B	13.1	B	10.5	B	9.0	B				
20	Iron	25200		30800		28600		22100		21500		22200		19200		19500					
0.6	*Lead	360		190		202		223		40.4	B	51.8	B	44.4	B	74.5					
1000	Magnesium	1750		1870		(850)		3700		3390		2080		1730		1730					
3	Manganese	603		581		404		1120		676		710		369		1340					
0.1	Mercury			0.24	B	1.7								0.12	B	0.13	B				
8	Nickel	16.3	B	18.6	B	17.5	B	17.7	B	19.1	B	18.4	B	14.4	B	17.7	B				
1000	Potassium	(758)		(700)						1430		1340		1250		(1110)					
1	Selenium		R		R	1.7	J		R		R		R		R		R				
2	Silver																				
1000	Sodium	(317)	B	(349)	B	(449)	B	(474)	B	(420)	B	(333)	B	(445)	B	(451)	B				
2	Thallium		UL								UL										
10	Vanadium	16.3		23.9		26.4		20.7		20.6		22.5		22.5		27.1					
4	Zinc	758	B	877	B	212	B	809	B	120	B	147	B	166	B	136	B				
0.5	Cyanide					0.94		0.93				0.80									

CRDL = Contract Required Detection Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inor ic Traffic Report & Cha) Custody Record

(For Inorganic CLP Analysis)

SAS No. (if applicable)

Case No. 22533

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
5303		III	WESTON	8/4/94	Federal Express

Regional Information

Sampler (Name): Joe CARTER

Airbill Number: 202868 0964

Non-Superfund Program

Sampler Signature: Joe B. Carter

5. Ship To: Mack Laboratories, Inc
2199 Dartmore Avenue
Pittsburgh, PA 15210
ATTN: John Mack, Mgr

Site Name: WESTINGHOUSE-SHARON

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	X		RIFS	CLEM
PRP		PA	RD X	REMA
ST		SSI	RA	REM
FED		LSI	O&M	OIL
			NPLD	UST

City, State: Sharon, PA

Site Spill ID

6. Preservative (Enter in Column D)
1. HCl
2. HNO_3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other (Specify)
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only Nitrate/ Nitrite	Low Conc. only Fluoride	High only pH	High only Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
MCRS57	5	Low	Grab	6	X		X					T3-22035	S01	08/02/94, 1145	JC	CQR13	—
MCRS58	5	Low	Grab	6	X		X					T3-22034	S02	08/02/94, 1215	JC	CQR14	—
MCRS59	5	Low	Grab	6	X		X					T3-22033	S03	08/02/94, 1235	JC	CQR15	—
MCRS60	5	Low	Grab	6	X		X					T3-22032	S04	08/02/94, 1420	JC	CQR16	—
MCRS61	5	Low	Grab	6	X		X					T3-22031	S05	08/02/94, 1435	JC	CQR17	—
MCRS62	5	Low	Grab	6	X		X					T3-22030	S06	08/02/94, 1510	JC	CQR18	—
MCRS63	5	Low	Grab	6	X		X					T3-22029	S06 DUP	08/02/94, 1510	JC	CQR19	D-MCRS62
MCRS64	5	Low	Grab	6	X		X					T3-22028	S07	08/02/94, 1535	JC	CQR20	—
MCRS65	5	Low	Grab	6	X		X					T3-22027	S08	08/02/94, 1600	JC	CQR21	—
MCRS66	5	Low	Grab	6	X		X					T3-22026	S09	08/02/94, 1630	JC	CQR22	—

Shipment for Case complete? (Y/N)

Page 1 of 4

Sample used for a spike and/or duplicate: MCRS62

Additional Sampler Signatures

Chain of Custody Seal Number

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	8/4/94 1600				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

EPA Form 9110-1 (Rev. 5-91) Replaces EPA Form (2075-6), previous edition which may be used

DISTRIBUTION:
Green - Region Copy Pink - SMO Copy White - Lab Copy for return to Region Yellow - Lab Copy for Return to SMO

Split Samples ☐ Accepted ☐ Declined (Signature)

AR300643

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No. (if applicable):

Case No. 22533

1. Project Code: 5303
Account Code:
2. Region No.: III
Sampling Co.: Weston
4. Date Shipped: 8/4/94
Carrier: Federal Express
Airbill Number: 2028680964

Regional Information:

Sampler (Name): Joe Carter

Non-Superfund Program:

Sampler Signature: [signature]

Site Name: Westinghouse · Sharon
City, State: Sharon, PA
Site Spill ID:

3. Type of Activity: Lead SF [X]; PRP [ ]; ST [ ]; FED [ ] — Pre-Remedial: PA [ ]; SSI [ ]; LSI [ ] — Remedial: RIFS [ ]; RD [X]; RA [ ]; O&M [ ]; NPLD [ ] — Removal: CLEM [ ]; REMA [ ]; REM [ ]; OIL [ ]; UST [ ]

5. Ship To: Mack Laboratories, Inc.
2199 Dartmore Avenue
Pittsburgh, PA 15210
ATTN: John Mack, Mgr

6. Preservative (Enter in Column D)
1. HCl
2. HNO_3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other (Specify)
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

K: B = Blank, S = Spike, D = Duplicate, PE = Perform. Eval., — = Not a QC Sample

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only Nitrate/Nitrite	Low Conc. only Fluoride	High only pH	High only Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC
MCRS67	5	Low	Grab	6	X		X					T3-22025	S10	08/02/94 1700	JC	CQR23	—
MCRS68	5	Low	Grab	6	X		X					T3-22024	S11	08/02/94 1730	JC	CQR24	—
MCRS69	5	Low	Grab	6	X		X					T3-22023	S12	08/02/94 1800	JC	CQR25	—
MCRS70	4	Low	Grab	2	X							T3-22046	RB-1	08/03/94, 0830	JC	CQR26	B
MCRS70	4	Low	Grab	3			X					T3-22048	RB-1	08/03/94, 0830	JC	CQR26	B
MCRS71	5	Low	Grab	6	X		X					T3-22022	S13	08/03/94, 0930	JC	CQR27	—
MCRS72	5	Low	Grab	6	X		X					T3-22021	S14	08/03/94, 0950	JC	CQR28	—
MCRS73	5	Low	Grab	6	X		X					T3-22020	S15	08/13/94, 1015	JC	CQR29	—
MCRS74	5	Low	Grab	6	X		X					T3-22019	S16	08/03/94, 1030	JC	CQR30	—
MCRS75	5	Low	Grab	6	X		X					T3-22018	S17	08/03/94 1055	JC	CQR31	—

Shipment for Case complete? (Y/N): N
Page 1 of 4 (of 2)
Sample used for a spike and/or duplicate: MCRS62
Additional Sampler Signatures: [signatures]
Chain of Custody Seal Number:

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/4/94 1600				

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	Is custody seal intact? Y/N/none

Split Samples [ ] Accepted [ ] Declined (Signature)

EPA Form 9110-1 (Rev. 5-91) Replaces EPA Form (2075-6), previous edition which may be used

DISTRIBUTION: Green - Region Copy for Region, Pink - SMO Copy, White - Lab Copy for return to Region, Yellow - Lab SMO

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

AR300644

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record
(For Inorganic CLP Analysis)

SAS No. (if applicable):

Case No.: 22533

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
5303		III	WESTON	8/4/94	Federal Express

Regional Information:

Sampler (Name): JOE CARTER

Airbill Number: 202868 0964

Non-Superfund Program:

Sampler Signature: Joseph S. Carter

5. Ship To:
Mack Laboratories, Inc.
2199 Dartmore Avenue
Pittsburgh, PA 15210
ATTN: John Mack, Mgr.

Site Name: WESTINGHOUSE - SHARON

City, State: SHARON, PA

Site Spill ID:

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	X		RIFS	CLEM
PRP		PA	RD X	REMA
ST		SSI	RA	REM
FED		LSI	O&M	OIL
			NPLD	UST

6. Preservative (Enter in Column D)
1. HCl
2. HNO_3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other (Specify)
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp/ Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only Nitrate/ Nitrite	Low Conc. only Fluoride	High only pH	High only Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC
MCRS76	5	Low	Grab	6	X		X					T3-22017	S18	08/03/94, 1110	JC	CQR32	—
MCRS77	5	Low	Grab	6	X		X					T3-22016	S19	08/03/94, 1130	JC	CQR33	—
MCRS78	5	Low	Grab	6	X		X					T3-22015	S19 DUPE	08/03/94, 1130	JC	CQR34	D - MCRS77
MCRS79	5	Low	Grab	6	X		X					T3-22014	S20	08/03/94, 1200	JC	CQR35	—
MCRS80	5	Low	Grab	6	X		X					T3-22013	S21	08/03/94, 1235	JC	CQR36	—
MCRS81	4 [5]	Low	Grab	2	X							T3-22045	RB-2 RINSATE	08/03/94, 1505	JC	CQR37	B
MCRS81	4	Low	Grab	3			X					T3-22047	RB-2 RINSATE	08/03/94, 1505	JC	CQR37	B
MCRS82	5	Low	Grab	6	X		X					T3-22012	S22	08/03/94, 1500	JC	CQR38	—
MCRS83	5	Low	Grab	6	X		X					T3-22011	S23	08/03/94, 1515	JC	CQR39	—
MCRS84	5	Low	Grab	6	X		X					T3-22010	S24	08/03/94, 1535	JC	CQR40	—

Shipment for Case complete? (Y/N): Y

Page 1 of 3

Sample used for a spike and/or duplicate: MCRS62

Additional Sampler Signature: Joseph S. Carter

Chain of Custody Seal Number:

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/4/94 1608				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

Split Samples: ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-1 (Rev. 5-91) Replaces EPA Form (2075-6), previous edition which may be used

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AR300645

EPA United States Environmental Protection Agency Contract Laboratory Program Sample Management Office PO Box 818 Alexandria, VA 22313 703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No. (if applicable)

Case No. 22533

1. Project Code: 5303
Account Code:
2. Region No.: III
Sampling Co.: WESTON
4. Date Shipped: 8/4/94
Carrier: Federal Express
Regional Information:
Sampler (Name): JOE CARTER
Airbill Number: 2028680964
Non-Superfund Program:
Sampler Signature: Joseph D. Carter
5. Ship To: Mack Laboratories, Inc. 2199 Dartmore Avenue Pittsburgh, PA 15210
ATTN: John Mack, Mgr
Site Name: Westinghouse - Sharon
City, State: Sharon, PA
Site Spill ID:

3. Type of Activity: Lead: SF [X], PRP [ ], ST [ ], FED [ ]; Pre-Remedial: PA [ ], SSI [ ], LSI [ ]; Remedial: RIFS [ ], RD [X], RA [ ], O&M [ ], NPLD [ ]; Removal: CLEM [ ], REMA [ ], REM [ ], OIL [ ], UST [ ]

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other (Specify)
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only: Nitrate/Nitrite	Fluoride	High only: pH	Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
MCRS85	5	Low	Grab	6	X		X					T3-22002	S25	08/03/94 1600	JC	CQR41	—
MCRS86	5	Low	Grab	6	X		X					T3-22003	S26	08/03/94 1620	JC	CQR42	—
MCRS87	5	Low	Grab	6	X		X					T3-22004	S27	08/03/94 1645	JC	CQR43	—
MCRS88	5	Low	Grab	6	X		X					T3-22005	S28	08/03/94 1735	JC	CQR44	—
MCRS89	5	Low	Grab	6	X		X					T3-22006	S29	08/03/94 1800	JC	CQR45	—
MCRS90	5	Low	Grab	6	X		X					T3-22007	S30	08/03/94 1845	JC	CQR46	—
MCRS91	5	Low	Grab	6	X		X					T3-22008	S31	08/03/94 1915	JC	CQR47	—

Shipment for Case complete? (Y/N) N
Page 4 of 4
Sample used for a spike and/or duplicate: MCRS62
Additional Sampler Signatures: [signatures]
Chain of Custody Seal Number:

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Chris Vatter [signature]	8/4/94 1600				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

EPA Form 9110-1 (Rev. 5-91) Replaces EPA Form (2075-6), previous edition which may be used

DISTRIBUTION: Green - Region Copy Pink - SMO Copy White - Lab Copy for return to Region Yellow - Lab Copy for Return to SMO

Split Samples [ ] Accepted [ ] Declined (Signature)

AR300646

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

Attachment D

Organics Data Validation, Analytical Summary, Traffic Report

Lockheed
Environmental Systems & Technologies Co.

Environmental Services Assistance Teams
Region 3
1419 Forest Drive, Suite 104
Annapolis, Maryland 21403

Phone: (410) 268-7705
Fax: (410) 268-8472

DATE: September 23, 1994

SUBJECT: Organic Data Validation for Case 22533
Site: Westinghouse Sharon

FROM: Edgar A. Latham EAL
Senior Organic Data Reviewer

Mahboobeh Mecanic MM
Senior Oversight Chemist

Mahmoud Hamid MH
Senior Oversight Chemist

TO: Susanne Stevens
ESAT Acting Regional Project Officer

THROUGH: Dale S. Boshart DSB
ESAT Team Manager

OVERVIEW

Case 22533 was submitted to Envirosystems Laboratory (ENVSYS) for full organic analysis. The case consisted of thirty-three (33) soil samples, one (1) trip blank that was analyzed for volatiles only, and two (2) rinsate blanks. The samples were submitted in two (2) sample delivery groups (SDGs). One (1) soil field duplicate pair for each SDG was analyzed. The samples were analyzed as a Contract Laboratory Program (CLP) Routine Analytical Service (RAS).

SUMMARY

All samples were successfully analyzed for all target compounds except for 2,4-dinitrophenol. All other instrument and method sensitivities were according to the Contract Laboratory Program (CLP) Routine Analytical Service (RAS) protocol.

MAJOR PROBLEM

- The average relative response factor for 2,4-dinitrophenol was less than 0.05 (<0.05) in the semivolatile continuing calibrations dated 8/15/94 and 9/1/94. The quantitation limit for this compound was qualified "R" for the associated samples. See Table I in Appendix E.

MINOR PROBLEMS

- The semivolatile reextraction of sample CQR19 was performed twenty (20) days after the date of sample collection. Although no technical holding time for the extraction of semivolatiles in soil samples has been established, the technical holding time of seven (7) days for aqueous samples has been exceeded by thirteen (13) days. The aqueous sample holding time was applied; therefore, the quantitation limits were qualified "UJ" and positive results were qualified "J", unless superseded by the "B" qualifier. The contractual holding time of ten (10) days from the validated time of sample receipt was exceeded by seven (7) days because the sample was reanalyzed due to surrogate outliers. See Form Is in Appendix C, Traffic Report, and Case Narrative in Appendix E.

- Several compounds failed precision criteria in the volatile and semivolatile initial and/or continuing calibrations. The positive results were qualified "J", except when superseded by the "B" qualifier, and when the percent relative standard deviation (%RSD) or the percent difference (%D) was greater than fifty percent (>50%), the quantitation limits were qualified "UJ", except when superseded by the "R" qualifier for these compounds in the affected samples.

- Benzo(k)fluoranthene exceeded the linear calibration range in the semivolatile analysis of sample CQR25. However, this compound was not detected in the diluted analysis. The result was reported from the initial analysis and qualified "J".

- In the semivolatile analyses of samples CQR16RE, CQR19, CQR40RE, and CQR42 several compounds were detected in either the initial or reanalyses. These compound were marked with a plus sign (+) on the data summary forms (DSFs) and qualified "J", unless superseded by the "B" qualifier.

- In the volatile analyses, samples CQR25, CQR32, and CQR42 had the system monitoring compound toluene-d8 outside the upper QC limits. Reanalyses of samples CQR25 and CQR42 produced similar results. The MS/MSD analyses of sample CQR32 confirmed matrix interference through internal standard responses. Quantitation limits were qualified "UJ". No positive results were detected.

- The semivolatile base/neutral surrogates 2-fluorobiphenyl (S2) and terphenyl-d14 (S3), in addition to the acid surrogate 2,4,6-tribromophenol (S6) were outside the upper QC limits for sample CQR25. The positive results for the base/neutral compounds were qualified "K", unless superseded by the "J" qualifier. See Form II SV-2 in Appendix E.

- In the pesticide/PCB analyses, samples CQR14, CQR23, CQR29, and CQR30 had two (2) surrogate recoveries outside the upper QC limits on different columns. Quantitation limits and reported results were qualified "UJ" and "J", respectively on the DSFs.

- In the pesticide/PCB analyses, sample CQR21 had one (1) surrogate recovery outside the upper QC limits on one column and another surrogate recovery outside the lower QC limits on the other column. Quantitation limits and Positive results were qualified "UJ" and "J", respectively on the DSF.

- In the pesticide/PCB analyses, samples CQR26, CQR39, CQR41, CQR44, CQR45, and CQR47 had two (2) surrogate recoveries outside the lower QC limits on different columns. Quantitation limits and reported results were qualified "UJ" and "J", respectively on the DSFs.

- In the pesticide/PCB analyses, samples CQR42 and CQR46 had four (4) surrogate recoveries outside the lower QC limits on both columns. Positive results were qualified "L" and quantitation limits were qualified "UL" on the DSFs.

- In the volatile analyses, samples CQR24, CQR29, CQR30, CQR31, CQR34, CQR35, CQR42, and CQR47 had one (1) or more internal standards outside the QC limits. Reanalyses of the above samples produced similar results for CQR29, CQR30, CQR31, CQR34 and CQR42 and better QC results for samples CQR24RE, CQR35RE and CQR47RE. Results from initial analyses of samples CQR29, CQR30, CQR31, CQR34 and CQR42, and from the reanalyses of samples CQR24, CQR35, and CQR47 were reported on the DSFs. Quantitation limits for compounds quantitated using any of the failed internal standards were qualified "UJ". No positive results were detected.

- In the semivolatile analyses, samples CQR19, CQR42, and CQR47 had the internal standards chrysene-d12 (IS5) and/or perylene-d12 (IS6) outside the QC limits. The reanalysis of these samples revealed similar results. Results were reported from the initial analyses. The quantitation limits were qualified "UJ" and positive results were qualified "J" for the compounds quantitated using the affected internal standards. See Form VIII SV-2 in Appendix E.

- In the semivolatile analyses, samples CQR13, CQR18, and CQR23 had internal standards phenanthrene-d10 (IS4) and/or IS5 outside the QC limits, while samples CQR25, CQR29, and CQR30 had IS6 outside the QC limits. These samples were diluted and reanalyzed because several compounds exceeded the linear calibration range. The internal standard recoveries for the diluted analyses were within QC limits. Quantitation limits were qualified "UJ" and positive results were qualified "J",

unless superseded by the "B" qualifier for compounds reported from the initial analyses that are associated with the affected internal standards. See Form VIII SV-2 in Appendix E.

- In the semivolatile analyses, samples CQR40 and CQR41 had internal standards IS5 and IS6 outside the QC limits. The reanalysis of these samples revealed only IS6 as an outlier. Results were reported from the reanalyses. The quantitation limits were qualified "UJ" and positive results were qualified "J" for the compounds quantitated using IS6. See Form VIII SV-2 in Appendix E.

- Three (3) internal standards were outside the QC limits in the semivolatile analysis of sample CQR16. In the reanalysis of this sample, only internal standard IS5 was outside the QC limit. Results were reported from the reanalysis. The quantitation limits were qualified "UJ" and positive results were qualified "J" for the compounds quantitated using IS5. See Form VIII SV-2 in Appendix E.

- The internal standard IS6 was outside the QC limit for the semivolatile analysis of sample CQR35DL. Positive results reported from the dilution were qualified "J" for the compounds quantitated using IS6. See Form VIII SV-2 in Appendix E.

- The "P" qualifier used on the pesticide/PCB Form Is denotes a percent difference (%D) greater than 25 percent (>25%) between the reported results on the two (2) columns used for the analyses. These results were qualified "J" on the DSFs. See Form Is in Appendix C and Form Xs in Appendix E.

NOTES

- The semivolatile extractions for samples CQR32-CQR36 and CQR38-CQR47 were performed eight (8) days after the date of sample collection. Although no technical holding time for the semivolatile extraction of soil samples has been established, the technical holding time of seven (7) days for aqueous samples has been exceeded by one (1) day. No data were qualified due to this minor holding time infraction because semivolatile compounds are considered persistent in soil samples. The contractual holding time was met by the laboratory. See Form Is in Appendix C and Traffic Report in Appendix E.

- In the pesticide/PCB analyses, soil samples CQR13-CQR20, CQR22-CQR28, CQR30, and CQR35, had several compounds that were not confirmed by GC/MS. Compounds detected at a concentration greater than 330 µg/Kg must be confirmed by GC/MS according to the 3/90 Statement of Work (SOW).

- The maximum concentrations of all compounds found in the analyses of the trip, field, and laboratory method blanks are listed below. Samples with concentrations of common laboratory contaminants less than ten times (<10X) the blank concentration or with concentration of other contaminants less than five times (<5X) the blank concentration have been qualified "B" on the DSFs.

Compound	Concentration	
Acetone *	14	µg/L
bis(2-ethylhexyl)phthalate *	3 J	µg/Kg
Endosulfan I	0.016 J	µg/L
4,4'-DDE	0.0064 J	µg/L
Alpha-chlordane	0.018 J	µg/L

* = Common laboratory contaminants

- Two (2) field duplicate pairs (CQR18/CQR19) and (CQR33/CQR34) were analyzed. The results and precision estimates, excluding the blank contaminants, are listed below:

Compound	Concentration (µg/Kg) CQR18	CQR19	RPD
2-methylnaphthalene	ND	79 J	IN
acenaphthylene	ND	82 J	IN
pentachlorophenol	ND	160 J	IN
phenanthrene	1400 J	1000 J	33
anthracene	300 J	200 J	40
carbazole	210 J	ND	IN
di-n-butylphthalate	180 J	820 J	128
fluoranthene	3600	1800 J	67
pyrene	2600	1500 J	54
benzo(a)anthracene	1800 J	1800 J	0
chrysene	1800 J	1200 J	40
benzo(b)fluoranthene	2900	1300 J	76
benzo(k)fluoranthene	2600	1300 J	67
benzo(a)pyrene	2000	1100 J	58
indeno(1,2,3-cd)pyrene	870	1700 J	65
dibenz(a,h)anthracene	510	1600 J	103
benzo(g,h,i)perylene	920 J	1400 J	41
4,4'-DDE	7.3 J	11 J	40
Endrin	18 J	20 J	10
4,4'-DDT	42 J	41 J	2
Endrin aldehyde	40 J	46 J	14
Alpha-Chlordane	51 J	60 J	16
Gamma-Chlordane	38 J	46 J	19
Aroclor-1260	1300	1400	7

Compound	Concentration (µg/Kg) CQR33	CQR34	RPD
acenaphthylene	82 J	95 J	15
phenanthrene	540	770	35
anthracene	230 J	250 J	8
carbazole	150 J	220 J	38
di-n-butylphthalate	120 J	ND	IN
fluoranthene	2100	2400	13
pyrene	2100 J	1800 J	15
benzo(a)anthracene	1400	1600	13
chrysene	1300	1500	14
benzo(b)fluoranthene	ND	2200	IN
benzo(k)fluoranthene	2300	ND	IN
benzo(a)pyrene	790	1200	41

Compound	Concentration (µg/Kg) CQR33	CQR34	RPD
Endosulfan I	17 J	15 J	12
4,4'-DDE	9 J	12	28
4,4'-DDT	16 J	19 J	17
Endrin aldehyde	12 J	11 J	9
Alpha-Chlordane	14 J	17 J	19
Gamma-Chlordane	9.5	10	5
Aroclor-1260	240 J	220 J	9

RPD = Relative Percent Difference
ND = Not Detected
IN = Indeterminate

- Many of the samples required dilutions for the semivolatile analyses because target compounds exceeded the linear calibration range. These compounds were qualified with an "E" by the laboratory. Results reported from the diluted analyses were marked with an asterisk (*) on the DSFs. The analyses of samples CQR14 and CQR28 were performed initially at a 10X dilution. See Form Is in Appendix C and the Case Narrative in Appendix E.

- In the pesticide/PCB analyses, several compounds exceeded the linear calibration range in samples CQR13 and CQR16 and dilutions were performed. Results reported from the diluted analyses were marked with an asterisk (*) on the DSFs.

- In the pesticide/PCB analysis of sample CQR16, dieldrin was detected at a concentration that exceeded the linear calibration range in the initial analysis. This compound was not reported by the laboratory in the 20X dilution. However, an inspection of the raw data shows the compound was present. The result was calculated by the reviewer and the Form I corrected. Dieldrin

was reported from the diluted analysis and marked with an asterisk (*) on the DSF. See Form Is in Appendix C and the chromatograms in Appendix E.

- The laboratory indicated that samples were diluted during the pesticide/PCB analyses because high target compound levels. Sample CQR24 was analyzed at a 20X dilution, sample CQR27 at a 10X dilution, and samples CQR29 and CQR30 at a 2X dilution. The laboratory diluted and analyzed several other samples, however, in the reviewer's judgement, many of these dilutions were unnecessary because the raw data did not suggest the results exceeded the linear calibration range. See Form Is in Appendix C and Case Narrative in Appendix E.

- Gel Permeation Chromatography (GPC) cleanup was performed in the semivolatile and pesticide/PCB analyses of the soil samples. The dilution factor of two (2) required by this procedure was accounted for in the analytical procedures used by the laboratory.

- Non-spiked compounds, other than blank contaminants, were determined in samples CQR18, CQR32, and the MS/MSD analyses of these samples. The results and precision estimates are as follows:

Compound	CQR18	CQR18MS	CQR18MSD	%RSD
2-methylnaphthalene	ND	ND	130 J	IN
phenanthrene	1400 J	1000	1400	18
anthracene	300 J	240 J	300 J	12
carbazole	210 J	170 J	200 J	11
di-n-butylphthalate	180 J	180 J	200 J	6
fluoranthene	3600	3600 E	4500 E	13
benzo(a)anthracene	1800 J	1500	1800	10
chrysene	1800 J	1400	1800	14
benzo(b)fluoranthene	2900	2400	2600	10
benzo(k)fluoranthene	2600	1400	2400	30
benzo(a)pyrene	2000	1600	1800	11
indeno(1,2,3-cd)pyrene	870	850	790	5
dibenz(a,h)anthracene	510	ND	300 J	95 +
benzo(g,h,i)perylene	920 J	880	890	2
4,4'-DDE	7.3 J	ND	ND	IN
Endrin aldehyde	40 J	33 J	6.9 J	65
Alpha-chlordane	51 J	47 J	8.6 J	66
Gamma-chlordane	38 J	35 J	6.7 J	65
Aroclor-1260	1300	1100	240	64

Compound	CQR32	CQR32MS	CQR32MSD	%RSD
phenanthrene	970	1000	1000	2
anthracene	160 J	190 J	200 J	11
carbazole	250 J	250 J	250 J	0
di-n-butylphthalate	790	850	920	8
fluoranthene	2700	2800	2800	2
benzo(a)anthracene	1300	990	1000	16
chrysene	980	1300	1200	14
benzo(b)fluoranthene	1700	ND	ND	IN
benzo(k)fluoranthene	ND	2600	2600	0 +
benzo(a)pyrene	200 J	660	780	56
indeno(1,2,3-cd)pyrene	420	ND	ND	IN
dibenz(a,h)anthracene	230 J	ND	ND	IN
benzo(g,h,i)perylene	160 J	ND	ND	IN
Endosulfan I	18	21	17 J	11
4,4'-DDE	6 J	7.2 J	6.5 J	9
Endrin aldehyde	14 J	14 J	13 J	4
Alpha-chlordane	3.6 J	3.8 J	3.3 J	7
Aroclor-1260	250 J	260 J	220 J	9

%RSD = Percent Relative Standard Deviation
+ = Relative Percent Difference (RPD) instead of %RSD
ND = Not Detected
IN = Indeterminate
E = Result exceeded the linear calibration range

- In the MS/MSD volatile analyses of samples CQR18 and CQR32, one (1) out of ten (10) spike recoveries were outside the QC limits.
- In the MS/MSD semivolatile analyses of sample CQR18, one (1) out of eleven (11) relative percent differences (RPDs) and two (2) out of twenty-two (22) spike recoveries were outside the QC limits.
- In the MS/MSD semivolatile analyses of sample CQR32, two (2) out of eleven (11) RPDs and five (5) out of twenty-two (22) spike recoveries were outside the QC limits.
- In the MS/MSD pesticide/PCB analyses of sample CQR18, six (6) out of six (6) RPDs and six (6) out of twelve (12) spike recoveries were outside the QC limits.
- In the semivolatile analyses, several samples had one (1) or two (2) surrogate recoveries outside the upper QC limits. No data were qualified. Surrogate recoveries for diluted samples were designated with a "D" by the laboratory. The extraction efficiency/method accuracy cannot be verified. See Form II SV-1&2.

- In the pesticide/PCB analyses, several samples had one (1) surrogate recovery outside the QC limits. No action was taken.

- In the pesticide/PCB analyses, the MSD analysis of sample CQR18 had four (4) surrogate recoveries outside the lower QC limits on both columns. No action was taken.

- In the pesticide/PCB analyses, the surrogate decachlorobiphenyl (DCB) had a retention time outside the established window for several samples because of matrix interference. No action was taken.

- The retention times for internal standards IS5 and IS6 were outside the upper QC limits in the semivolatile analysis of sample CQR35. Results for the associated compounds were reported from the dilution and marked with an asterisk (*).

- Several internal standards were outside the QC limits in the semivolatile MS/MSD analyses of samples CQR18 and CQR32. No data were qualified.

- The tentatively identified compounds (TICs) in Appendix D were reviewed and corrected during data validation. Compounds identified as blank contaminants, target compounds of another fraction, aldol condensation products, or phthalates were crossed off the TIC Form Is.

All data for Case 22533 were reviewed according to the National Functional Guidelines for Evaluating Organic Analyses with modification for use within Region III. The text of the report addresses only those problems affecting usability.

ATTACHMENTS

1) Appendix A - Glossary of Data Qualifiers
2) Appendix B - Data Summary Forms. These include:
   (a) All positive results for target compounds with qualifier codes where applicable.
   (b) All unusable detection limits (qualified "R").
3) Appendix C - Results as Reported by the Laboratory for All Target Compounds
4) Appendix D - Reviewed and Corrected Tentatively Identified Compounds
5) Appendix E - Support Documentation

DCN:EL409A01.WES

GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

CODES RELATED TO IDENTIFICATION
(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

NO CODE = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

CODES RELATED TO QUANTITATION
(can be used for both positive results and sample quantitation limits):

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

OTHER CODES

NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.

Q = No analytical result.

DATA SUMMARY FORM: V O L A T I L E S 1

Site Name: Westinghouse Sharon

WATER SAMPLES
(ug/L)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CROL * Dilution Factor)

	Sample No.	COR12	COR26	COR37						
	Dilution Factor	1.0	1.0	1.0						
	Location	TB-1	RB-1	RB-2						
CROL	COMPOUND	SAMPLE IS A TRIP BLANK.	SAMPLE IS A RINSATE BLANK.	SAMPLE IS A RINSATE BLANK.						
10	Chloromethane									
10	Bromomethane									
10	*Vinyl Chloride									
10	Chloroethane									
10	*Methylene Chloride									
10	Acetone									
10	Carbon Disulfide									
10	*1,1-Dichloroethene									
10	1,1-Dichloroethane									
10	*Total 1,2-Dichloroethene									
10	Chloroform									
10	*1,2-Dichloroethane									
10	*2-Butanone									
10	*1,1,1-Trichloroethane									
10	*Carbon Tetrachloride									
10	Bromodichloromethane									

CROL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

DATA SUMMARY FORM: VOLATILES 2

Site Name: Westinghouse Sharon

WATER SAMPLES
(ug/L)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRDL * Dilution Factor)

	Sample No.	CQR12	CQR26	CQR37						
	Dilution Factor	1.0	1.0	1.0						
	Location	TB-1	RB-1	RB-2						
CRQL	COMPOUND	SAMPLE IS A TRIP BLANK.	SAMPLE IS A RINSATE BLANK.	SAMPLE IS A RINSATE BLANK.						
10	*1,2-Dichloropropane									
10	Cis-1,3-Dichloropropene									
10	Trichloroethene									
10	Dibromochloromethane									
10	1,1,2-Trichloroethane									
10	*Benzene									
10	Trans-1,3-Dichloropropene									
10	Bromoform									
10	4-Methyl-2-pentanone									
10	2-Hexanone									
10	*Tetrachloroethene									
10	1,1,2,2-Tetrachloroethene									
10	*Toluene									
10	*Chlorobenzene									
10	*Ethylbenzene									
10	*Styrene									
10	*Total Xylenes									

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

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DATA SUMMARY FORM: V O L A T I L E S 1

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR13	COR14	COR15	COR16	COR17	COR18	COR19	COR20	COR21
	Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	% Moisture	7	21	10	23	8	19	15	21	12
	Location	S01	S02	S03	S04	S05	S06	S06 DUPE	S07	S08
							SAMPLE IS A FIELD DUP. OF COR19	SAMPLE IS A FIELD DUP. OF COR18		
CRQL	COMPOUND									
10	Chloromethane									
10	Bromomethane									
10	Vinyl Chloride									
10	Chloroethane									
10	Methylene Chloride									
10	Acetone									
10	Carbon Disulfide									
10	1,1-Dichloroethene									
10	1,1-Dichloroethane									
10	Total 1,2-Dichloroethene									
10	Chloroform									
10	1,2-Dichloroethane									
10	2-Butanone						UJ	UJ	UJ	UJ
10	1,1,1-Trichloroethane									
10	Carbon Tetrachloride									
10	Bromodichloromethane									

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

DATA SUMMARY FORM: V O L A T I L E S 2

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CROL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR13	COR14	COR15	COR16	COR17	COR18	COR19	COR20	COR21
	Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	% Moisture	7	21	10	23	8	19	15	21	12
	Location	S01	S02	S03	S04	S05	S06	S06 DUPE	S07	S08
							SAMPLE IS A FIELD DUP. OF COR19	SAMPLE IS A FIELD DUP. OF COR18		
CROL	COMPOUND									
10	1,2-Dichloropropane									
10	Cis-1,3-Dichloropropene									
10	Trichloroethene									
10	Dibromochloromethane									
10	1,1,2-Trichloroethane									
10	Benzene									
10	Trans-1,3-Dichloropropene									
10	Bromoform									
10	4-Methyl-2-pentanone									
10	2-Hexanone									
10	Tetrachloroethene									
10	1,1,2,2-Tetrachloroethane									
10	Toluene									
10	Chlorobenzene									
10	Ethylbenzene									
10	Styrene									
10	Total Xylenes									

CROL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

AR300661

DATA SUMMARY FORM: VOLATILES 1

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR22	COR23	COR24RE	COR25	COR27	COR28	COR29	COR30	COR31
	Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	% Moisture	18	3	5	24	19	20	12	11	11
	Location	S09	S10	S11	S12	S13	S14	S15	S16	S17
CRQL	COMPOUND									
10	Chloromethane				UJ					
10	Bromomethane				UJ					
10	Vinyl Chloride				UJ					
10	Chloroethane				UJ					
10	Methylene Chloride				UJ					
10	Acetone		UJ		UJ	UJ	UJ	UJ	UJ	UJ
10	Carbon Disulfide				UJ					
10	1,1-Dichloroethene				UJ					
10	1,1-Dichloroethane				UJ					
10	Total 1,2-Dichloroethene				UJ					
10	Chloroform				UJ					
10	1,2-Dichloroethane				UJ					
10	2-Butanone	UJ			UJ					
10	1,1,1-Trichloroethane				UJ				UJ	
10	Carbon Tetrachloride				UJ				UJ	
10	Bromodichloromethane				UJ				UJ	

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

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DATA SUMMARY FORM: VOLATILES 2

Site Name: Westinghouse Sheron

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR22	COR23	COR24RE	COR25	COR27	COR28	COR29	COR30	COR31
	Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	% Moisture	18	3	5	24	19	20	12	11	11
	Location	S09	S10	S11	S12	S13	S14	S15	S16	S17
CRQL	COMPOUND									
10	1,2-Dichloropropane				UJ				UJ	
10	Cis-1,3-Dichloropropene				UJ				UJ	
10	Trichloroethene				UJ				UJ	
10	Dibromochloromethane				UJ				UJ	
10	1,1,2-Trichloroethane				UJ				UJ	
10	Benzene				UJ				UJ	
10	Trans-1,3-Dichloropropene				UJ				UJ	
10	Bromoform				UJ				UJ	
10	4-Methyl-2-pentanone			UJ	UJ			UJ	UJ	UJ
10	2-Hexanone			UJ	UJ			UJ	UJ	UJ
10	Tetrachloroethene			UJ	UJ			UJ	UJ	UJ
10	1,1,2,2-Tetrachloroethane			UJ	UJ			UJ	UJ	UJ
10	Toluene			UJ	UJ			UJ	UJ	UJ
10	Chlorobenzene			UJ	UJ			UJ	UJ	UJ
10	Ethylbenzene			UJ	UJ			UJ	UJ	UJ
10	Styrene			UJ	UJ			UJ	UJ	UJ
10	Total Xylenes			UJ	UJ			UJ	UJ	UJ

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

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DATA SUMMARY FORM: VOLATILES 1

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR32	COR33	COR34	COR35RE	COR36	COR38	COR39	COR40	COR41
	Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	% Moisture	17	15	15	28	18	15	14	11	15
	Location	S18	S19	S19 DUP.	S20	S21	S22	S23	S24	S25
			SAMPLE IS A FIELD DUP. OF COR34	SAMPLE IS A FIELD DUP. OF COR33						
CRQL	COMPOUND									
10	Chloromethane	UJ								
10	Bromomethane	UJ								
10	Vinyl Chloride	UJ								
10	Chloroethane	UJ								
10	Methylene Chloride	UJ								
10	Acetone	UJ	UJ	UJ						
10	Carbon Disulfide	UJ								
10	1,1-Dichloroethene	UJ								
10	1,1-Dichloroethane	UJ								
10	Total 1,2-Dichloroethene	UJ								
10	Chloroform	UJ								
10	1,2-Dichloroethane	UJ								
10	2-Butanone	UJ								
10	1,1,1-Trichloroethane	UJ								
10	Carbon Tetrachloride	UJ								
10	Bromodichloromethane	UJ								

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

DATA SUMMARY FORM: V O L A T I L E S 2

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CROL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR32	COR33	COR34	COR35RE	COR36	COR38	COR39	COR40	COR41
	Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	% Moisture	17	15	15	28	18	15	14	11	15
	Location	S18	S19	S19 DUP.	S20	S21	S22	S23	S24	S25
			SAMPLE IS A FIELD DUP. OF COR34	SAMPLE IS A FIELD DUP. OF COR33						
CROL	COMPOUND									
10	1,2-Dichloropropane	U								
10	Cis-1,3-Dichloropropene	U								
10	Trichloroethene	U								
10	Dibromochloromethane	U								
10	1,1,2-Trichloroethene	U								
10	Benzene	U								
10	Trans-1,3-Dichloropropene	U								
10	Bromoform	U								
10	4-Methyl-2-pentanone	U		U	U					
10	2-Hexanone	U		U	U					
10	Tetrachloroethene	U		U	U					
10	1,1,2,2-Tetrachloroethane	U		U	U					
10	Toluene	U		U	U					
10	Chlorobenzene	U		U	U					
10	Ethylbenzene	U		U	U					
10	Styrene	U		U	U					
10	Total Xylenes	U		U	U					

CROL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

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DATA SUMMARY FORM: V O L A T I L E S 1

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR42	COR43	COR44	COR45	COR46	COR47RE			
	Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0			
	% Moisture	13	16	20	12	20	25			
	Location	S26	S27	S28	S29	S30	S31			
CRQL	COMPOUND									
10	Chloromethane	UJ								
10	Bromomethane	UJ								
10	Vinyl Chloride	UJ								
10	Chloroethane	UJ								
10	Methylene Chloride	UJ								
10	Acetone	UJ					45	B		
10	Carbon Disulfide	UJ								
10	1,1-Dichloroethene	UJ								
10	1,1-Dichloroethane	UJ								
10	Total 1,2-Dichloroethene	UJ								
10	Chloroform	UJ								
10	1,2-Dichloroethane	UJ								
10	2-Butanone	UJ								
10	1,1,1-Trichloroethane	UJ						UJ		
10	Carbon Tetrachloride	UJ						UJ		
10	Bromodichloromethane	UJ						UJ		

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

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DATA SUMMARY FORM: VOLATILES 2

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR42	COR43	COR44	COR45	COR46	COR47RE			
	Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0			
	% Moisture	13	16	20	12	20	25			
	Location	S26	S27	S28	S29	S30	S31			
CRQL	COMPOUND									
10	1,2-Dichloropropane		UJ				UJ			
10	Cis-1,3-Dichloropropene		UJ				UJ			
10	Trichloroethene		UJ				UJ			
10	Dibromochloromethane		UJ				UJ			
10	1,1,2-Trichloroethane		UJ				UJ			
10	Benzene		UJ				UJ			
10	Trans-1,3-Dichloropropene		UJ				UJ			
10	Bromoform		UJ				UJ			
10	4-Methyl-2-pentanone		UJ				UJ			
10	2-Hexanone		UJ				UJ			
10	Tetrachloroethene		UJ				UJ			
10	1,1,2,2-Tetrachloroethene		UJ				UJ			
10	Toluene		UJ				UJ			
10	Chlorobenzene		UJ				UJ			
10	Ethylbenzene		UJ				UJ			
10	Styrene		UJ				UJ			
10	Total Xylenes		UJ				UJ			

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

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DATA SUMMARY FORM: B N A 1

Site Name: Westinghouse Sharon

WATER SAMPLES
(ug/L)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRDL * Dilution Factor)

	Sample No.	COR26	COR37							
	Dilution Factor	1.0	1.0							
	Location	RB-1	RB-2							
CRQL	COMPOUND	SAMPLE 18 A RINSATE BLANK.	SAMPLE 18 A RINSATE BLANK.							
10	Phenol									
10	bis(2-Chloroethyl)ether									
10	2-Chlorophenol									
10	*1,3-Dichlorobenzene									
10	*1,4-Dichlorobenzene									
10	1,2-Dichlorobenzene									
10	2-Methylphenol									
10	2,2'-oxybis(1-chloropropane)									
10	4-Methylphenol									
10	N-Nitroso-di-n-propylamine									
10	Hexachloroethane									
10	Nitrobenzene									
10	Isophorone									
10	2-Nitrophenol									
10	2,4-Dimethylphenol									
10	bis(2-Chloroethoxy)methane									
10	2,4-Dichlorophenol									
10	1,2,4-Trichlorobenzene									
10	Naphthalene									
10	4-Chloroaniline									

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

DATA SUMMARY FORM: B N A 2

Site Name: Westinghouse Sharon

WATER SAMPLES
(ug/L)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution Factor)

	Sample No.	CQR26	CQR37							
	Dilution Factor	1.0	1.0							
	Location	RB-1	RB-2							
CRQL	COMPOUND	SAMPLE IS A RINSATE BLANK.	SAMPLE IS A RINSATE BLANK.							
10	Hexachlorobutadiene									
10	4-Chloro-3-methylphenol									
10	2-Methylnaphthalene									
10	Hexachlorocyclopentadiene									
10	2,4,6-Trichlorophenol									
25	2,4,5-Trichlorophenol									
10	2-Chloronaphthalene									
25	2-Nitroaniline									
10	Dimethylphthalate									
10	Acenaphthylene									
10	2,6-Dinitrotoluene									
25	3-Nitroaniline									
10	Acenaphthene									
25	2,4-Dinitrophenol		R							
25	4-Nitrophenol									
10	Dibenzofuran									
10	2,4-Dinitrotoluene									
10	Diethylphthalate									
10	4-Chlorophenyl-phenylether									
10	Fluorene									
25	4-Nitroaniline		UJ							
25	4,6-Dinitro-2-methylphenol									

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

DATA SUMMARY FORM: B N A 3

Site Name: Westinghouse Sharon

WATER SAMPLES
(ug/L)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution Factor)

	Sample No.	COR26	COR37							
	Dilution Factor	1.0	1.0							
	Location	RB-1	RB-2							
CRQL	COMPOUND	SAMPLE IS A RINSATE BLANK.	SAMPLE IS A RINSATE BLANK.							
10	N-Nitrosodiphenylamine									
10	4-Bromophenyl-phenylether									
10	*Hexachlorobenzene									
25	*Pentachlorophenol									
10	Phenanthrene									
10	Anthracene									
10	Carbazole									
10	Di-n-butylphthalate									
10	Fluoranthene									
10	Pyrene									
10	Butylbenzylphthalate									
10	3,3'-Dichlorobenzidine									
10	Benzo(a)anthracene									
10	Chrysene									
10	bis(2-Ethylhexyl)phthalate		3	J						
10	Di-n-octylphthalate									
10	Benzo(b)fluoranthene									
10	Benzo(k)fluoranthene									
10	Benzo(a)pyrene									
10	Indeno(1,2,3-cd)pyrene									
10	Dibenz(a,h)anthracene									
10	Benzo(g,h,i)perylene									

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

DATA SUMMARY FORM: B N A 1

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CROL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR13	COR14	COR15	COR16RE	COR17	COR18	COR19	COR20	COR21
	Dilution Factor	1.0/4.0	10.0	1.0/2.0	1.0	1.0	1.0/2.0	1.0	1.0	1.0
	% Moisture	7	21	10	23	8	19	15	21	12
	Location	S01	S02	S03	S04	S05	S06	S06_DUPE	S07	S08
							SAMPLE IS A FIELD DUP. OF COR19	SAMPLE IS A FIELD DUP. OF COR18		
CROL	COMPOUND									
330	Phenol							UJ		
330	bis(2-Chloroethyl)ether							UJ		
330	2-Chlorophenol							UJ		
330	1,3-Dichlorobenzene							UJ		
330	1,4-Dichlorobenzene							UJ		
330	1,2-Dichlorobenzene							UJ		
330	2-Methylphenol							UJ		
330	2,2'-oxybis(1-chloropropane)							UJ		
330	4-Methylphenol							UJ		
330	N-Nitroso-di-n-propylamine							UJ		
330	Hexachloroethane							UJ		
330	Nitrobenzene							UJ		
330	Isophorone							UJ		
330	2-Nitrophenol							UJ		
330	2,4-Dimethylphenol							UJ		
330	bis(2-Chloroethoxy)methane							UJ		
330	2,4-Dichlorophenol							UJ		
330	1,2,4-Trichlorobenzene							UJ		
330	Naphthalene							UJ		
330	4-Chloroaniline							UJ		

CROL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

DATA SUMMARY FORM: B N A 2

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR13	COR14	COR15	COR16RE	COR17	COR18	COR19	COR20	COR21
	Dilution Factor	1.0/4.0	10.0	1.0/2.0	1.0	1.0	1.0/2.0	1.0	1.0	1.0
	% Moisture	7	21	10	23	8	19	15	21	12
	Location	S01	S02	S03	S04	S05	S06	S06_DUPE	S07	S08
							SAMPLE IS A FIELD DUP. OF COR19	SAMPLE IS A FIELD DUP. OF COR18		
CRQL	COMPOUND									
330	Hexachlorobutadiene									
330	4-Chloro-3-methylphenol							UJ		
330	2-Methylnaphthalene							UJ		
330	Hexachlorocyclopentadiene							79 + J		
330	2,4,6-Trichlorophenol							UJ		
800	2,4,5-Trichlorophenol							UJ		
330	2-Chloronaphthalene							UJ		
800	2-Nitroaniline							UJ		
330	Dimethylphthalate							UJ		
330	Acenaphthylene							UJ		
330	2,6-Dinitrotoluene							82 + J		
800	3-Nitroaniline							UJ		
330	Acenaphthene							UJ		
800	2,4-Dinitrophenol		R					UJ		
800	4-Nitrophenol							UJ		UJ
330	Dibenzofuran							UJ		
330	2,4-Dinitrotoluene							UJ		
330	Diethylphthalate							UJ		
330	4-Chlorophenyl-phenylether							UJ		
330	Fluorene	150 J						UJ		
800	4-Nitroaniline							UJ		
800	4,6-Dinitro-2-methylphenol							UJ		
							UJ	UJ		

CRQL = Contract Required Quantitation Limit
+ = Result Reported From Reanalysis

SEE NARRATIVE FOR CODE DEFINITIONS
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DATA SUMMARY FORM: B N A 3

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR13	COR14	COR15	COR16RE	COR17	COR18	COR19	COR20	COR21
	Dilution Factor	1.0/4.0	10.0	1.0/2.0	1.0	1.0	1.0/2.0	1.0	1.0	1.0
	% Moisture	7	21	10	23	8	19	15	21	12
	Location	S01	S02	S03	S04	S05	S06	S06_DUPE	S07	S08
							SAMPLE IS A FIELD DUP. OF COR19	SAMPLE IS A FIELD DUP. OF COR18		
CRQL	COMPOUND									
330	N-Nitrosodiphenylamine						UJ	UJ		
330	4-Bromophenyl-phenylether						UJ	UJ		
330	Hexachlorobenzene						UJ	UJ		
800	Pentachlorophenol						UJ	160 J		
330	Phenanthrene	2600	6300	2300	480	810	1400 J	1000 J	1000	1100
330	Anthracene	220 J	1400 J	280 J		110 J	300 J	200 J	140 J	190 J
330	Carbazole	230 J		310 J		120 J	210 J		150 J	130 J
330	Di-n-butylphthalate			120 J		180 J	180 J	820 J	570	390
330	Fluoranthene	6000 *	28000	3900 *	1100	2000	3600 *	1800 J	2600	2700
330	Pyrene	3800 *	20000	2700 *	470 J	1300	2600 *	1500 J	1800	1500
330	Butylbenzylphthalate	UJ		220 J		320 J	UJ	UJ		120 J
330	3,3'-Dichlorobenzidine	UJ			UJ		UJ	UJ		
330	Benzo(a)anthracene	2000 J	13000	1500	320 J	630	1800 J	1800 J	880	1400
330	Chrysene	2300 J	13000	1700	360 J	730	1800 J	1200 J	950	1400
330	bis(2-Ethylhexyl)phthalate	430 B		360 B	140 + B	510 B	200 B	490 B	510 B	420 B
330	Di-n-octylphthalate							UJ		
330	Benzo(b)fluoranthene	2400 *	23000	2100	540	910	2900	1300 J	1300	2600
330	Benzo(k)fluoranthene	2500		1300	370 J	500	2600	1300 J	900	
330	Benzo(a)pyrene	2300	12000	1600	320 J	570	2000	1100 J	960	1100
330	Indeno(1,2,3-cd)pyrene	800	7200	640	170 + J	280 J	870	1700 J	360 J	430
330	Dibenz(a,h)anthracene	290 J	2900 J	270 J		120 J	510	1600 J	160 J	170 J
330	Benzo(g,h,i)perylene	690	7500	890 J	190 + J	340 J	920 J	1400 J	480 J	620

CRQL = Contract Required Quantitation Limit
* = Result Reported From Dilution
+ = Result Reported From Initial Analysis

SEE NARRATIVE FOR CODE DEFINITIONS
revised 07/90

DATA SUMMARY FORM: B N A 1

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR22	COR23	COR24	COR25	COR27	COR28	COR29	COR30	COR31
	Dilution Factor	1.0/2.0	1.0/2.0	1.0	1.0/5.0	1.0	10.0	1.0/10.0	1.0/10.0	1.0
	% Moisture	18	4	5	24	19	12	12	11	11
	Location	S09	S10	S11	S12	S13	S14	S15	S16	S17
CRQL	COMPOUND									
330	Phenol									
330	bis(2-Chloroethyl)ether									
330	2-Chlorophenol									
330	1,3-Dichlorobenzene									
330	1,4-Dichlorobenzene									
330	1,2-Dichlorobenzene									
330	2-Methylphenol									
330	2,2'-oxybis(1-chloropropane)									
330	4-Methylphenol									
330	N-Nitroso-di-n-propylamine									
330	Hexachloroethane									
330	Nitrobenzene									
330	Isophorone									
330	2-Nitrophenol									
330	2,4-Dimethylphenol									
330	bis(2-Chloroethoxy)methane									
330	2,4-Dichlorophenol									
330	1,2,4-Trichlorobenzene									
330	Naphthalene				160 J			800	890	
330	4-Chloroaniline									

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

DATA SUMMARY FORM: B N A 2

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CROL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR22		COR23		COR24		COR25		COR27		COR28		COR29		COR30		COR31	
	Dilution Factor	1.0/2.0		1.0/2.0		1.0		1.0/5.0		1.0		10.0		1.0/10.0		1.0/10.0		1.0	
	% Moisture	18		4		5		24		19		12		12		11		11	
	Location	S09		S10		S11		S12		S13		S14		S15		S16		S17	
CROL	COMPOUND																		
330	Hexachlorobutadiene																		
330	4-Chloro-3-methylphenol																		
330	2-Methylnaphthalene			110	J			200	J					420		560			
330	Hexachlorocyclopentadiene																		
330	2,4,6-Trichlorophenol																		
800	2,4,5-Trichlorophenol																		
330	2-Chloronaphthalene																		
800	2-Nitroaniline																		
330	Dimethylphthalate																		
330	Acenaphthylene													210	J	200	J		
330	2,6-Dinitrotoluene																		
800	3-Nitroaniline																		
330	Acenaphthene							320	J					380		340	J		
800	2,4-Dinitrophenol																		
800	4-Nitrophenol																		R
330	Dibenzofuran							280	J					930		740			
330	2,4-Dinitrotoluene															190	J		
330	Diethylphthalate																		
330	4-Chlorophenyl-phenylether																		
330	Fluorene	160	J					310	J					420		300	J		
800	4-Nitroaniline																		
800	4,6-Dinitro-2-methylphenol				UJ														

CROL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

DATA SUMMARY FORM: B N A 3

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR22		COR23		COR24		COR25		COR27		COR28		COR29		COR30		COR31	
	Dilution Factor	1.0/2.0		1.0/2.0		1.0		1.0/5.0		1.0		10.0		1.0/10.0		1.0/10.0		1.0	
	% Moisture	18		4		5		24		19		12		12		11		11	
	Location	S09		S10		S11		S12		S13		S14		S15		S16		S17	
CRQL	COMPOUND																		
330	N-Nitrosodiphenylamine				UJ														
330	4-Bromophenyl-phenylether				UJ														
330	Hexachlorobenzene				UJ														
800	Pentachlorophenol				UJ			180	J										
330	Phenanthrene	2300		1000	J	630		5300 *		1100		7900		19000 *		16000 *		280	J
330	Anthracene	320	J	240	J			520	K	180	J	1400	J	900		670			
330	Carbazole	360	J	110	J	110	J	590	K	140	J			2300		1600			
330	Di-n-butylphthalate			360 *	J	330	J	140	J	770				340	J	290	J	450	
330	Fluoranthene	3800 *		2700 *		1500		9300 *		2900		17000		27000 *		24000 *		590	
330	Pyrene	2200 *		2000 *		1300		5700 *		2300		13000		17000 *		16000 *		350	J
330	Butylbenzylphthalate			110	J														
330	3,3'-Dichlorobenzidine																		
330	Benzo(a)anthracene	1300		1200		580		3800 *		890		7700		6600 *		6600 *		240	J
330	Chrysene	1500		1400		600		4400 *		970		7900		9100 *		8700 *		270	J
330	bis(2-Ethylhexyl)phthalate	430	B	710	B	210	B	4500 *	B	620	B			220	B			130	B
330	Di-n-octylphthalate								UJ						UJ		UJ		
330	Benzo(b)fluoranthene	2400		2700		1000		7900 *		1100		9600		8600 *		8600 *		560	
330	Benzo(k)fluoranthene	1500				480		9000	J	1600		5300	J	6600 *	J	6300 *	J		
330	Benzo(a)pyrene	1400		1000		590		3400	J	920		7000		5600 *		5700 *		240	J
330	Indeno(1,2,3-cd)pyrene	720		800		300	J	1100	J	460		5100		2600	J	1900	J	120	J
330	Dibenz(a,h)anthracene	380	J	230	J	130	J	440	J	220	J	1700	J	920	J	710	J		
330	Benzo(g,h,i)perylene	890	J	2100	J	360	J	1100	J	520	J	5300	J	2800	J	2000	J		

CRQL = Contract Required Quantitation Limit
* = Result Reported From Dilution

SEE NARRATIVE FOR CODE DEFINITIONS
revised 07/90

DATA SUMMARY FORM: B N A 1

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CROL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR32	COR33	COR34	COR35	COR36	COR38	COR39	COR40RE	COR41RE
	Dilution Factor	1.0	1.0	1.0	1.0/10.0	1.0	1.0	1.0	1.0	1.0
	% Moisture	17	15	15	28	18	15	14	11	15
	Location	S18	S19	S19_DUPE	S20	S21	S22	S23	S24	S25
			SAMPLE IS A FIELD DUP. OF COR34	SAMPLE IS A FIELD DUP. OF COR33						
CROL	COMPOUND									
330	Phenol									
330	bis(2-Chloroethyl)ether									
330	2-Chlorophenol									
330	1,3-Dichlorobenzene									
330	1,4-Dichlorobenzene									
330	1,2-Dichlorobenzene									
330	2-Methylphenol									
330	2,2'-oxybis(1-chloropropane)									
330	4-Methylphenol									
330	N-Nitroso-di-n-propylamine									
330	Hexachloroethane									
330	Nitrobenzene									
330	Isophorone									
330	2-Nitrophenol									
330	2,4-Dimethylphenol									
330	bis(2-Chloroethoxy)methane									
330	2,4-Dichlorophenol									
330	1,2,4-Trichlorobenzene									
330	Naphthalene				380 J	150 J				
330	4-Chloroaniline				150 J					

CROL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS
revised 07/90

DATA SUMMARY FORM: B N A 2

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

CRQL	COMPOUND	Sample No.	COR32	COR33	COR34	COR35	COR36	COR38	COR39	COR40RE	COR41RE
		Dilution Factor	1.0	1.0	1.0	1.0/10.0	1.0	1.0	1.0	1.0	1.0
		% Moisture	17	15	15	28	18	15	14	11	15
		Location	S18	S19 SAMPLE IS A FIELD DUP. OF COR34	S19_DUPE SAMPLE IS A FIELD DUP. OF COR33	S20	S21	S22	S23	S24	S25
330	Hexachlorobutadiene										
330	4-Chloro-3-methylphenol										
330	2-Methylnaphthalene					400 J	310 J				
330	Hexachlorocyclopentadiene										
330	2,4,6-Trichlorophenol										
800	2,4,5-Trichlorophenol										
330	2-Chloronaphthalene										
800	2-Nitroaniline										
330	Dimethylphthalate										
330	Acenaphthylene			82 J	95 J						
330	2,6-Dinitrotoluene										
800	3-Nitroaniline										
330	Acenaphthene										
800	2,4-Dinitrophenol						UJ		R		
800	4-Nitrophenol										
330	Dibenzofuran						140 J				
330	2,4-Dinitrotoluene										
330	Diethylphthalate										
330	4-Chlorophenyl-phenylether										
330	Fluorene						130 J				
800	4-Nitroaniline										
800	4,6-Dinitro-2-methylphenol								UJ		

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

DATA SUMMARY FORM: B N A 3

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CROL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR32	COR33	COR34	COR35	COR36	COR38	COR39	COR40RE	COR41RE
	Dilution Factor	1.0	1.0	1.0	1.0/10.0	1.0	1.0	1.0	1.0	1.0
	% Moisture	17	15	15	28	18	15	14	11	15
	Location	S18	S19	S19_DUPE	S20	S21	S22	S23	S24	S25
			SAMPLE IS A FIELD DUP. OF COR34	SAMPLE IS A FIELD DUP. OF COR33						
CROL	COMPOUND									
330	N-Nitrosodiphenylamine									
330	4-Bromophenyl-phenylether									
330	Hexachlorobenzene									
800	Pentachlorophenol								220 J	
330	Phenanthrene	970	540	770	9700 *	1500	840	720	690	900
330	Anthracene	160 J	230 J	250 J	2600	200 J	98 J		150 J	160 J
330	Carbazole	250 J	150 J	220 J		200 J				170 J
330	Di-n-butylphthalate	790	120 J			230 J			920	960
330	Fluoranthene	2700	2100	2400	23000 *	1800	1500	1900	1600	1600
330	Pyrene	1600 J	2100 J	1800 J	11000 *	1300	950	1300	790	930
330	Butylbenzylphthalate				*					
330	3,3'-Dichlorobenzidine				*					
330	Benzo(a)anthracene	1300	1400	1600	7700 *	1000	640	620	630	730
330	Chrysene	980	1300	1500	8000 *	950	760	630	690	740
330	bis(2-Ethylhexyl)phthalate	220 B	480 B	160 B	*	440 B	180 B	320 B		110 B
330	Di-n-octylphthalate				*				UJ	UJ
330	Benzo(b)fluoranthene	1700		2200	13000 * J	1000		670	1200 J	1300 J
330	Benzo(k)fluoranthene		2300		*	1000 J	1200 J	310 J	1500 + J	UJ
330	Benzo(a)pyrene	200 J	790	1200	8200 * J	940	360 J	510	580 J	580 J
330	Indeno(1,2,3-cd)pyrene	420			10000 * J	510		570	910 + J	900 J
330	Dibenz(a,h)anthracene	230 J			9200 * J	240 J		180 J	800 + J	1200 J
330	Benzo(g,h,i)perylene	160 J			9700 * J	570		670	1000 + J	1000 J

CROL = Contract Required Quantitation Limit
* = Result Reported From Dilution
+ = Result Reported From Initial Analysis

SEE NARRATIVE FOR CODE DEFINITIONS
revised 07/90

DATA SUMMARY FORM: B N A 1

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR42	COR43	COR44	COR45	COR46	COR47			
	Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0			
	% Moisture	13	16	20	12	20	25			
	Location	S26	S27	S28	S29	S30	S31			
CRQL	COMPOUND									
330	Phenol									
330	bis(2-Chloroethyl)ether									
330	2-Chlorophenol									
330	1,3-Dichlorobenzene									
330	1,4-Dichlorobenzene									
330	1,2-Dichlorobenzene									
330	2-Methylphenol									
330	2,2'-oxybis(1-chloropropane)									
330	4-Methylphenol									
330	N-Nitroso-di-n-propylamine									
330	Hexachloroethane									
330	Nitrobenzene									
330	Isophorone									
330	2-Nitrophenol									
330	2,4-Dimethylphenol									
330	bis(2-Chloroethoxy)methane									
330	2,4-Dichlorophenol									
330	1,2,4-Trichlorobenzene									
330	Naphthalene	230 + J								
330	4-Chloroaniline									

CRQL = Contract Required Quantitation Limit
+ = Result Reported From Reanalysis

SEE NARRATIVE FOR CODE DEFINITIONS
revised 07/90

DATA SUMMARY FORM: B N A 2

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-96 - 8-3-96

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR42		COR43		COR44		COR45		COR46		COR47	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0	
	% Moisture	13		16		20		12		20		25	
	Location	S26		S27		S28		S29		S30		S31	
CRQL	COMPOUND												
330	Hexachlorobutadiene												
330	4-Chloro-3-methylphenol												
330	2-Methylnaphthalene	310 +	J										
330	Hexachlorocyclopentadiene												
330	2,4,6-Trichlorophenol												
800	2,4,5-Trichlorophenol												
330	2-Chloronaphthalene												
800	2-Nitroaniline												
330	Dimethylphthalate												
330	Acenaphthylene												
330	2,6-Dinitrotoluene												
800	3-Nitroaniline												
330	Acenaphthene												
800	2,4-Dinitrophenol					UJ				R			
800	4-Nitrophenol												
330	Dibenzofuran	180 +	J										
330	2,4-Dinitrotoluene												
330	Diethylphthalate												
330	4-Chlorophenyl-phenylether												
330	Fluorene												
800	4-Nitroaniline									UJ			
800	4,6-Dinitro-2-methylphenol												

CRQL = Contract Required Quantitation Limit

+ = Result Reported From Reanalysis

SEE NARRATIVE FOR CODE DEFINITIONS

revised 07/90

DATA SUMMARY FORM: S M A 3

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR42		COR43		COR44		COR45		COR46		COR47					
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0					
	% Moisture	13		16		20		12		20		25					
	Location	S26		S27		S28		S29		S30		S31					
CRQL	COMPOUND																
330	N-Nitrosodiphenylamine																
330	4-Bromophenyl-phenylether																
330	Hexachlorobenzene																
800	Pentachlorophenol																
330	Phenanthrene	640		670													
330	Anthracene	130	J									99	J				
330	Carbazole	130	J	120	J												
330	Di-n-butylphthalate	1900		1600		1200		820		2400		2200					
330	Fluoranthene	1900		1400		270	J			630		190	J				
330	Pyrene	960	J	1300						540			UJ				
330	Butylbenzylphthalate		UJ										UJ				
330	3,3'-Dichlorobenzidine		UJ										UJ				
330	Benzo(a)anthracene	960	J	930						470			UJ				
330	Chrysene	780	J	950		130	J			400	J		UJ				
330	bis(2-Ethylhexyl)phthalate	130 +	B							160	B	120	B				
330	Di-n-octylphthalate		UJ										UJ				
330	Benzo(b)fluoranthene	890	J	1100		240	J			550		170	J				
330	Benzo(k)fluoranthene	1100	J	1200	J					550			UJ				
330	Benzo(a)pyrene	650	J	1000						480			UJ				
330	Indeno(1,2,3-cd)pyrene	1200	J	690						630			UJ				
330	Dibenz(a,h)anthracene	1100	J	280	J					130	J		UJ				
330	Benzo(g,h,i)perylene	1300	J	760						660			UJ				

CRQL = Contract Required Quantitation Limit
+ = Result Reported From Reanalysis

SEE NARRATIVE FOR CODE DEFINITIONS
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DATA SUMMARY FORM: PESTICIDES AND PCBS

WATER SAMPLES
(ug/L)

Site Name: Westinghouse Sharon

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution Factor)

CRQL	COMPOUND	COR26		COR37	
	Sample No.	COR26		COR37	
	Dilution Factor	1.0		1.0	
	Location	RB-1		RB-2	
		SAMPLE IS A RINSATE BLANK.		SAMPLE IS A RINSATE BLANK.	
0.05	alpha-BHC		UJ		
0.05	beta-BHC		UJ		
0.05	delta-BHC		UJ		
0.05	*gamma-BHC (Lindane)		UJ		
0.05	*Heptachlor		UJ		
0.05	Aldrin		UJ		
0.05	Heptachlor Epoxide		UJ		
0.05	Endosulfan I		UJ	0.016	J
0.10	Dieldrin		UJ		
0.10	4,4'-DDE		UJ	0.0064	J
0.10	*Endrin		UJ		
0.10	Endosulfan II		UJ		
0.10	4,4'-DDD		UJ		
0.10	Endosulfan Sulfate		UJ		
0.10	4,4'-DDT		UJ		
0.50	*Methoxychlor		UJ		
0.10	Endrin Ketone		UJ		
0.10	Endrin Aldehyde		UJ		
0.05	*alpha-Chlordane		UJ	0.018	J
0.05	*gamma-Chlordane		UJ		
5.0	*Toxaphene		UJ		
1.0	*Aroclor-1016		UJ		
2.0	*Aroclor-1221		UJ		
1.0	*Aroclor-1232		UJ		
1.0	*Aroclor-1242		UJ		
1.0	*Aroclor-1248		UJ		
1.0	*Aroclor-1254		UJ		
1.0	*Aroclor-1260		UJ		

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: PESTICIDES AND PCBS

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR13		COR14		COR15		COR16		COR17		COR18		COR19		COR20		COR21	
	Dilution Factor	1.0/10.0		1.0		1.0		2.0/20.0		1.0		1.0		1.0		1.0		1.0	
	% Moisture	7		21		10		23		8		19		15		21		12	
	Location	S01		S02		S03		S04		S05		S06 SAMPLE IS A FIELD DUP. OF COR19		S06_DUPE SAMPLE IS A FIELD DUP. OF COR18		S07		S08	
CRQL	COMPOUND																		
1.7	alpha-BHC				UJ														UJ
1.7	beta-BHC				UJ														UJ
1.7	delta-BHC				UJ														UJ
1.7	gamma-BHC (Lindane)				UJ														UJ
1.7	Heptachlor				UJ														UJ
1.7	Aldrin				UJ														UJ
1.7	Heptachlor Epoxide				UJ														UJ
1.7	Endosulfan I				UJ														UJ
3.3	Dieldrin	300*			UJ			428*		8.3	J								UJ
3.3	4,4'-DDE	7.6	J	26	J			82	J	7.3	J	7.3	J	11	J	12	J	2.1	J
3.3	Endrin			15	J	9.5	J	34	J			18	J	20	J			5.0	J
3.3	Endosulfan II				UJ														UJ
3.3	4,4'-DDD			30	J														UJ
3.3	Endosulfan Sulfate				UJ														UJ
3.3	4,4'-DDT	30	J	21	J			170	J	26	J	42	J	41	J	25	J	7.4	J
17	Methoxychlor				UJ														UJ
3.3	Endrin Ketone				UJ														UJ
3.3	Endrin Aldehyde				UJ	11	J	38	J	27	J	40	J	46	J	24	J	7.0	J
1.7	alpha-Chlordane				UJ			480*		4.7	J	51	J	60	J	2.4	B	24	J
1.7	gamma-Chlordane				UJ			550*		5.0	J	38	J	46	J	1.4	J	16	J
170	Toxaphene				UJ														UJ
33	Aroclor-1016				UJ														UJ
67	Aroclor-1221				UJ														UJ
33	Aroclor-1232				UJ														UJ
33	Aroclor-1242				UJ														UJ
33	Aroclor-1248				UJ														UJ
33	Aroclor-1254				UJ														UJ
33	Aroclor-1260	410		1300	J	440		980		840		1300		1400		630		220	J

CRQL = Contract Required Quantitation Limit

* = Results taken from diluted analyses

DATA SUMMARY FORM: PESTICIDES AND PCBS

Site Name: Westinghouse Sheron

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CROL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR22		COR23		COR24		COR25		COR27		COR28		COR29		COR30		COR31	
	Dilution Factor	1.0		1.0		20.0		1.0		10.0		1.0		2.0		2.0		1.0	
	% Moisture	18		4		5		24		19		12		12		11		11	
	Location	S09		S10		S11		S12		S13		S14		S15		S16		S17	
CROL	COMPOUND																		
1.7	alpha-BHC				UJ								UJ		UJ				
1.7	beta-BHC				UJ								UJ		UJ				
1.7	delta-BHC				UJ								UJ		UJ				
1.7	gamma-BHC (Lindane)				UJ								UJ		UJ				
1.7	Heptachlor				UJ								UJ		UJ				
1.7	Aldrin				UJ								UJ		UJ				
1.7	Heptachlor Epoxide				UJ								UJ		UJ				
1.7	Endosulfan I				UJ								UJ		UJ				
3.3	Dieldrin	6.1	J		UJ								41	J	UJ				
3.3	4,4'-DDE	15		7.8	J	65	J	6.2	J	180		15			UJ		UJ		
3.3	Endrin	8.4		17	J	57	J	12		120	J	12	J		UJ	70	J	1.2	J
3.3	Endosulfan II				UJ										UJ		UJ		
3.3	4,4'-DDD				UJ										UJ		UJ		
3.3	Endosulfan Sulfate				UJ										UJ		UJ		
3.3	4,4'-DDT	56	J		UJ			16	J	140	J	39	J	62	J	37	J	2.7	J
17	Methoxychlor				UJ										UJ		UJ		
3.3	Endrin Ketone				UJ										UJ		UJ		
3.3	Endrin Aldehyde	27	J		UJ							20	J		UJ		UJ		
1.7	alpha-Chlordane	9.4		25	J	790	J	3.9	B	1300	J	48	J	76	J	72	J	1.2	B
1.7	gamma-Chlordane	8.3	J	31	J	900		8.6		1200		36	J	62	J	70	J		
170	Toxaphene				UJ										UJ		UJ		
33	Aroclor-1016				UJ										UJ		UJ		
67	Aroclor-1221				UJ										UJ		UJ		
33	Aroclor-1232				UJ										UJ		UJ		
33	Aroclor-1242				UJ										UJ		UJ		
33	Aroclor-1248				UJ										UJ		UJ		
33	Aroclor-1254				UJ										UJ		UJ		
33	Aroclor-1260	760		870	J	870		550		1200	J	880			UJ	1800	UJ	76	J

CROL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: PESTICIDES AND PCBS

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

CRQL	COMPOUND	COR32		COR33		COR34		COR35		COR36		COR38		COR39		COR40		COR41	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
	% Moisture	17		15		15		28		18		15		14		11		15	
	Location	S18		S19 SAMPLE IS A FIELD DUP. OF COR34		S19 DUPE SAMPLE IS A FIELD DUP. OF COR33		S20		S21		S22		S23		S24		S25	
1.7	alpha-BHC														UJ				UJ
1.7	beta-BHC														UJ				UJ
1.7	delta-BHC														UJ				UJ
1.7	gamma-BHC (Lindane)														UJ				UJ
1.7	Heptachlor														UJ				UJ
1.7	Aldrin														UJ				UJ
1.7	Heptachlor Epoxide														UJ				UJ
1.7	Endosulfan I	18		17	J	15	J	120	J	24	J	16		15	J	19	J	40	J
3.3	Dieldrin														UJ				UJ
3.3	4,4'-DDE	6.0	J	9.0	J	12		28	J	7.8	J	20		18	J	3.2	J		UJ
3.3	Endrin	7.9	J					15	J						UJ				UJ
3.3	Endosulfan II														UJ				UJ
3.3	4,4'-DDD														UJ				UJ
3.3	Endosulfan Sulfate														UJ				UJ
3.3	4,4'-DDT	7.2	J	16	J	19	J	56	J	6.9	J	38		23	J	8.1	J	4.8	J
17	Methoxychlor														UJ				UJ
3.3	Endrin Ketone														UJ				UJ
3.3	Endrin Aldehyde	14	J	12	J	11	J	52	J						UJ	18	J	7.8	J
1.7	alpha-Chlordane	3.6	B	14	J	17	J	140	J	20		10	J	9.4	J	25		4.0	J
1.7	gamma-Chlordane			9.5		10		120		3.8	J	2.7	J	3.3	J				UJ
170	Toxaphene														UJ				UJ
33	Aroclor-1016														UJ				UJ
67	Aroclor-1221														UJ				UJ
33	Aroclor-1232														UJ				UJ
33	Aroclor-1242														UJ				UJ
33	Aroclor-1248														UJ				UJ
33	Aroclor-1254														UJ				UJ
33	Aroclor-1260	250	J	240		220	J	960	J	130	J	96	J	95	J	280		140	J

CRQL = Contract Required Quantitation Limit

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X

DATA SUMMARY FORM: PESTICIDES AND PCBS

Site Name: Westinghouse Sharon

SOIL SAMPLES
(ug/Kg)

Case #: 22533 Sampling Date(s): 8-2-94 - 8-3-94

To calculate sample quantitation limits:
(CRQL * Dilution factor / ((100 - %moisture)/100)

	Sample No.	COR42		COR43		COR44		COR45		COR46		COR47				
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0				
	% Moisture	13		16		20		12		20		25				
	Location	S26		S27		S28		S29		S30		S31				
CRQL	COMPOUND															
1.7	alpha-BHC		UL				UJ		UJ		UL		UJ			
1.7	beta-BHC		UL				UJ		UJ		UL		UJ			
1.7	delta-BHC		UL				UJ		UJ		UL		UJ			
1.7	gamma-BHC (Lindane)		UL				UJ		UJ		UL		UJ			
1.7	Heptachlor		UL				UJ		UJ		UL		UJ			
1.7	Aldrin		UL				UJ		UJ		UL		UJ			
1.7	Heptachlor Epoxide	0.87	J	0.66	J		UJ	1.1	J		UL		UJ			
1.7	Endosulfan I	3.1	J	17		1.9	B	1.3	B	3.3	B	1.2	B			
3.3	Dieldrin		UL				UJ	2.5	J		UL		UJ			
3.3	4,4'-DDE		UL	7.1			UJ		UJ	1.1	J	0.85	J			
3.3	Endrin		UL				UJ		UJ		UL		UJ			
3.3	Endosulfan II		UL				UJ		UJ		UL		UJ			
3.3	4,4'-DDD		UL				UJ		UJ		UL		UJ			
3.3	Endosulfan Sulfate		UL				UJ		UJ		UL		UJ			
3.3	4,4'-DDT	1.3	J	5.3	J		UJ		UJ	0.67	J		UJ			
17	Methoxychlor		UL				UJ		UJ		UL		UJ			
3.3	Endrin Ketone		UL				UJ		UJ		UL		UJ			
3.3	Endrin Aldehyde	1.7	J	6.6	J	2.4	J		UJ	2.4	J		UJ			
1.7	alpha-Chlordane	2.7	B	5.4	J	1.2	B		UJ		UL		UJ			
1.7	gamma-Chlordane		UL				UJ		UJ		UL		UJ			
170	Toxaphene		UL				UJ		UJ		UL		UJ			
33	Aroclor-1016		UL				UJ		UJ		UL		UJ			
67	Aroclor-1221		UL				UJ		UJ		UL		UJ			
33	Aroclor-1232		UL				UJ		UJ		UL		UJ			
33	Aroclor-1242		UL				UJ		UJ		UL		UJ			
33	Aroclor-1248		UL				UJ		UJ		UL		UJ			
33	Aroclor-1254		UL				UJ		UJ		UL		UJ			
33	Aroclor-1260		UL	100	J		UJ		UJ		UL	17	J			

CRQL = Contract Required Quantitation Limit

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United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 22533

1. Project Code: 5303
Account Code
2. Region No.: III
Sampling Co.: WESTON
4. Date Shipped: 8/4/94
Carrier: Federal Express

Regional Information

Sampler (Name): Chris Van Gordler
Airbill Number: 202 868 0953

Non-Superfund Program

Sampler Signature: [signature]

5. Ship To: Envirosystems, Inc
9200 Rumsey Rd, Suite #B102
Columbia, MD 21045
ATTN: Mohan Khare

Site Name: Westinghouse Sharon
City, State: Sharon, PA
Site Spill ID

3. Purpose*
Lead: [X] SF, [ ] PRP, [ ] ST, [ ] FED
Early Action: [ ] CLEM, [ ] PA, [ ] REM, [ ] RI, [ ] SI, [ ] ESI
Long-Term Action: [ ] FS, [X] RD, [ ] RA, [ ] O&M, [ ] NPLD

6. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify in Column A)

7. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaHSO4
4. H2SO4
5. Ice only
6. Other (Specify in Column D)
N. Not preserved

CLP Sample Numbers (from labels)	A Matrix (from Box 6) Other	B Conc.: Low Med High	C Sample Type: Comp./Grab	D Preservative (from Box 7) Other	E RAS Analysis VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Field QC Qualifier B = Blank S = Spike D = Duplicate R = Rinsate PE = Perform. Eval. -- = Not a QC Sample
CQR12	4	LOW	Grab	1	X				T3-22042, 22043, 22044	TB1	08/02/94, 1030	—	CVG	B
CQR13	5	Low	Grab	5	X	X	X		T3-22435, T3-22904	S01	08/02/94, 1145	MCRS57	JC	--
CQR14	5	Low	Grab	5	X	X	X		T3-22936, T3-22903	S02	08/02/94, 1215	MCRS58	JC	--
CQR15	5	Low	Grab	5	X	X	X		T3-22937, T3-22902	S03	08/02/94, 1235	MCRS59	JC	--
CQR16	5	LOW	Grab	5	X	X	X		T3-22438, T3-22901	S04	08/02/94, 1420	MCRS60	JC	--
CQR17	5	LOW	Grab	5	X	X	X		T3-22939, T3-22900	S05	08/02/94, 1435	MCRS61	JC	--
CQR18	5	LOW	Grab	5	X	X	X		T3-22940, T3-22999	S06	08/02/94, 1510	MCRS62	JC	--
CQR19	5	LOW	Grab	5	X	X	X		T3-22941, T3-22998	S06 DUPE	08/02/94, 1510	MCRS63	JC	D CQR18
CQR20	5	LOW	Grab	5	X	X	X		T3-22942, T3-22997	S07	08/02/94, 1535	MCRS64	JC	--
CQR21	5	LOW	Grab	5	X	X	X		T3-22943, T3-22996	S08	08/02/94, 1600	MCRS65	JC	--

Shipment for Case Complete? (Y/N): N
Page 1 of 4
Sample(s) to be Used for Laboratory QC: CQR18
Additional Sampler Signatures: [signatures]
Chain of Custody Seal Number(s)

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/4/94 1600				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	Is custody seal intact? Y/N/none

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360859

AR300688

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier	SAS No. (if applicable)	Case No.
5303		III	WESTON	8/4/94	Federal Express		22533

Regional Information

Non-Superfund Program

Sampler (Name): JOE CARTER

Sampler Signature: Joseph B. Carter

Airbill Number: 2028680953

5. Ship To: Envirosystems, Inc. 9200 Rumsey Rd, Suite #B102 Columbia, MD 21045
ATTN: Mohan Khare

Site Name: WESTINGHOUSE - SHARON

City, State: SHARON, PA

Site Spill ID

3. Purpose*
Lead: [X] SF, [ ] PRP, [ ] ST, [ ] FED
Early Action: [ ] CLEM, [ ] PA, [ ] REM, [ ] RI, [ ] SI, [ ] ESI
Long-Term Action: [ ] FS, [X] RD, [ ] RA, [ ] O&M, [ ] NPLD

6. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify in Column A)

7. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaHSO4
4. H2SO4
5. Ice only
6. Other (Specify in Column D)
N. Not preserved

CLP Sample Numbers (from labels)	A Matrix (from Box 6) Other:	B Conc.: Low Med High	C Sample Type: Comp./Grab	D Preservative (from Box 7) Other:	E RAS Analysis VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Field QC Qualifier B = Blank S = Spike D = Duplicate R = Rinsate PE = Perform. Eval. -- = Not a QC Sample
CQR 22	5	Low	Grab	5	X	X	X		T3-22944, T3-22995	S09	08/02/94, 1630	MCRS 66	JC	
CQR 23	5	Low	Grab	5	X	X	X		T3-22945, T3-22994	S10	08/02/94, 1700	MCRS 67	JC	
CQR 24	5	Low	Grab	5	X	X	X		T3-22946, T3-22993	S11	08/02/94, 1730	MCRS 68	JC	
CQR 25	5	Low	Grab	5	X	X	X		T3-22947, T3-22992	S12	08/02/94, 1800	MCRS 69	JC	
CQR 26	4	Low	Grab	1	X				T3-22041, 22040, 22039	RB1	08/03/94, 0830	MCRS 70	JC	B
CQR 26	4	Low	Grab	5		X	X		T3-22053, 22054, 22055, 22056	RB1	08/03/94, 0830	MCRS 70	JC	B
CQR 27	5	Low	Grab	5	X	X	X		T3-22148, T3-22991	S13	08/03/94, 0930	MCRS 71	JC	
CQR 28	5	Low	Grab	5	X	X	X		T3-22449, T3-22990	S14	08/03/94, 0950	MCRS 72	JC	
CQR 29	5	Low	Grab	5	X	X	X		T3-22950, T3-22989	S15	08/03/94, 1015	MCRS 73	JC	
CQR 30	5	Low	Grab	5	X	X	X		T3-22951, T3-22988	S16	08/03/94, 1030	MCRS 74	JC	

Shipment for Case Complete? (Y/N): N

Page 2 of 4

Sample(s) to be Used for Laboratory QC: CRQ18

Additional Sampler Signatures: Chris VanTil; John Mueller; [illegible]

Chain of Custody Seal Number(s)

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Chris VanTil	8/4/94 1600				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

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A21-012-3 REV. 3/93

AR300689

EPA — Organic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program

(For Organic CLP Analysis)

1. Project Code: 5303	Account Code:	2. Region No.: III	Sampling Co.: WESTON	4. Date Shipped: 8/4/94	Carrier: Federal Express
Regional Information:		Sampler (Name): JOE CARTER		Airbill Number: 202868 0953	
Non-Superfund Program:		Sampler Signature: Joseph S. Carter		5. Ship To: Enviros ystems, Inc 9200 Rumsey Rd, Suite #B102 Columbia, MD 21045 ATTN: Mohan Khare	
Site Name: WESTINGHOUSE - SHARON		3. Purpose*: Lead: SF, PRP, ST, FED; Early Action: CLEM, PA, REM, RI, SI, ESI; Long-Term Action: FS, RD, RA, O&M, NPLD			
City, State: SHARON, PA	Site Spill ID:				

6. Matrix (Enter in Column A): 1. Surface Water; 2. Ground Water; 3. Leachate; 4. Field QC; 5. Soil/Sediment; 6. Oil (High only); 7. Waste (High only); 8. Other (Specify in Column A)

7. Preservative (Enter in Column D): 1. HCl; 2. HNO3; 3. NaHSO4; 4. H2SO4; 5. Ice only; 6. Other (Specify in Column D); N. Not preserved

SAS No. (if applicable):

Case No.: 22533

CLP Sample Numbers (from labels)	A Matrix (from Box 6)	B Conc.: Low Med High	C Sample Type: Comp./ Grab	D Preservative (from Box 7)	E RAS Analysis: VOA	BNA	Pest/PCB	High only: ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Field QC Qualifier (B = Blank, S = Spike, D = Duplicate, R = Rinsate, PE = Pesticide Evaluation, — = Not a QC Sample)
CQR31	S	Low	Grab	S	X	X	X		T3-22952, T3-22987	S17	08/03/94, 1055	MCRS75	JC	—
CQR32	S	Low	Grab	S	X	X	X		T3-22953, T3-22986	S18	08/03/94, 1110	MCRS76	JC	—
CQR33	S	Low	Grab	S	X	X	X		T3-22954, T3-22985	S19	08/03/94, 1130	MCRS77	JC	—
CQR34	S	Low	Grab	S	X	X	X		T3-22955, T3-22984	S19 DUPE	08/03/94, 1130	MCRS78	JC	D-CQR33
CQR35	S	Low	Grab	S	X	X	X		T3-22956, T3-22983	S20	08/03/94, 1200	MCRS79	JC	—
CQR36	S	Low	Grab	S	X	X	X		T3-22957, T3-22982	S21	08/03/94, 1235	MCRS80	JC	—
CQR37	4	Low	Grab	5		X	X		T3-22952, 22951, 22950, 22949	RB-2 RINSATE	08/03/94, 1505	MCRS81	CF	B
CQR38	5	Low	Grab	1	X				T3-22036, 22037, 22038	RB-2 RINSATE	08/03/94, 1505	MCRS81	CF	B
CQR39	5	Low	Grab	5	X	X	X		T3-22958 T3-22981	S22	08/03/94	MCRS82	JC	—
									T3-22959 T3-22980	S23	08/03/94	MCRS83	JC	—

Shipment for Case Complete? (Y/N):

Page: 3 of 4

Sample(s) to be Used for Laboratory QC: CRQ18

Additional Sampler Signature(s):

Chain of Custody Seal Number(s):

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Chris VanDyke	8/4/94 1600				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

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AR300690

AR300690

EPA — Organic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 22533

1. Project Code: 5303 | Account Code:

Regional Information:

Non-Superfund Program:

Site Name: Westinghouse - Sharon

City, State: Sharon, PA | Site Spill ID:

2. Region No.: III | Sampling Co.: WESTON

Sampler (Name): JOE CARTER

Sampler Signature: Joseph S. Carter

3. Purpose*: Lead — [X] SF [ ] PRP [ ] ST [ ] FED; Early Action — [ ] CLEM [ ] PA [ ] REM [ ] RI [ ] SI [ ] ESI; Long-Term Action — [ ] FS [X] RD [ ] RA [ ] O&M [ ] NPLD

4. Date Shipped: 8/4/94 | Carrier: Federal Express

Airbill Number: 202 868 0953

5. Ship To: Envirosystems, Inc.
9200 Rumsey Rd, Suite #B102
Columbia, MD 21045
ATTN: Mohan Khare

6. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify in Column A)

7. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaHSO4
4. H2SO4
5. Ice only
6. Other (Specify in Column D)
N. Not preserved

CLP Sample Numbers (from labels)	A Matrix (from Box 6) / Other:	B Conc.: Low Med High	C Sample Type: Comp./ Grab	D Preservative (from Box 7) / Other:	E RAS Analysis: VOA	BNA	Pest/PCB	High only: ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Field QC Qualifier (B = Blank, S = Spike, D = Duplicate, R = Rinsate, PE = Perform. Eval., — = Not a QC Sample)
CQR40	S	Low	Grab	S	X	X	X		T3-22960, T3-22974	S24	08/03/94, 1535	MCRS84	JC	—
CQR41	S	Low	Grab	S	X	X	X		T3-22961, T3-22978	S25	08/03/94, 1600	MCRS85	JC	—
CQR42	S	Low	Grab	S	X	X	X		T3-22962, T3-22977	S26	08/03/94, 1620	MCRS86	JC	—
CQR43	S	Low	Grab	S	X	X	X		T3-22963, T3-22976	S27	08/03/94, 1645	MCRS87	JC	—
CQR44	S	Low	Grab	S	X	X	X		T3-22964, T3-22975	S28	08/03/94, 1735	MCRS88	JC	—
CQR45	S	Low	Grab	S	X	X	X		T3-22965, T3-22974	S29	08/03/94, 1800	MCRS89	JC	—
CQR46	S	Low	Grab	S	X	X	X		T3-22966, T3-22973	S30	08/03/94, 1845	MCRS90	JC	—
CQR47	S	Low	Grab	S	X	X	X		T3-22967, T3-22972	S31	08/03/94, 1815	MCRS91	JC	—

Shipment for Case Complete? (Y/N):

Page: 4 of 4

Sample(s) to be Used for Laboratory QC: CRQ18

Additional Sampler Signature(s):

Chain of Custody Seal Number(s):

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Joseph S. Carter	8/4/94 1600				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

A21-012-3 REV. 3/93

DISTRIBUTION: Blue - Region Copy; White - Lab Copy for Return to Region; Pink - SMO Copy; Yellow - Lab Copy for Return to SMO

EPA Form 9110-2

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

AR300691

Attachment E

Dioxin/Dibenzo furan Data Validation, Analytical Summary, Chain-of-Custody

WESTON
MANAGERS DESIGNERS CONSULTANTS
5 Underwood Court, Delran, New Jersey 08075-1229
609-461-4003 • 215-238-0338 • Fax 609-461-4916

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-WO-0036

MEMORANDUM

TO: Gerald Heston, OSC, EPA Region III
Western Removal Section

FROM: Marian Murphy, TAT Region III MM TDD# 9205-25B
PCS# 5497

SUBJECT: Westinghouse Sharon Samples Analytical Review

DATE: September 15, 1994

This report covers the general review of the data package submitted by Weston Lionville Analytical Laboratory, for one (1) rinsate blank sample and fifteen (15) soil samples collected at the Westinghouse Sharon Site on August 2-3, 1994. The samples were received at Weston Liovnille Analytical Laboratory, in Lionville, PA on August 6, 1994. The analysis requested was isomer specific polychlorinated dibenzo dioxins and poly chlorinated dibenzo furans and to determine the toxicity equivalents as 2,3,7,8 tetra chloro dibenzo dioxin (2,3,7,8-TCDD).

ANALYTICAL METHODOLOGY

The samples were analyzed for isomer specific polychlorinated dibenzo dioxin and polychlorinated dibenzo furans following EPA Method 8280.

- Signed chain-of-custody records were received.
- The hold times were met. The initial and continuing calibration data met ion ratio criteria, percent relative standard deviation criteria and percent difference criteria, respectively. The method blanks were free of contamination. The surrogate spike recoveries met criteria. The MS/MSD recoveries and the RPD values met criteria. All identified isomers met identification criteria. Attached is a table of 2,3,7,8-TCDD toxicity equivalent factors for all samples which positive values for any isomer or homolog were reported.

CONCLUSION

Accept all data as presented.

Attachment: 2,3,7,8-TCDD Toxicity Equivalents Factors

2,3,7,8-TCDD TOXICITY EQUIVALINTS FOR THE WESTINGHOUSE SHARON SITE

UNITS EXPRESSED AS (ng/g) OR PARTS PER BILLION

ISOMER/HOMOLOG	S01 NG/G	S04 NG/G	S06 NG/G	S07 NG/G	S09 NG/G	S15 NG/G	S18 NG/G	S20 NG/G	S24 NG/G	S27 NG/G	S30 NG/G	S31 NG/G
1,2,3,6,7,8-HXCDD			0.0008									
TOTAL HXCDD		0.0024	0.0028	0.0016								
1,2,3,4,6,7,8-HPCDD	0.0001	0.00009	0.0001	0.0002	0.0001			0.0004				
TOTAL HPCDD	0.0001	0.00008	0.0001	0.0001	0.000000		0.0001	0.0003				
OCDD	0.00005	0.0005	0.0005	0.0007	0.0005	0.0004	0.0004	0.0016	0.0004	0.0006	0.0009	0.0005
2,3,7,8-TCDF		0.003	0.003	0.003								
TOTAL TCDF		0.0001	0.00014	0.00011								
TOTAL PECDF	0.005	0.018	0.022	0.006								
1,2,3,4,7,8-HXCDF	0.0001	0.0003	0.0003	0.0002								
1,2,3,6,7,8-HXCDF		0.0001	0.0001									
2,3,4,6,7,8-HXCDF		0.0002	0.0002									
TOTAL HXCDF	0.0009	0.0018	0.0021	0.0011			0.002					
1,2,3,4,6,7,8-HPCDF	0.00004	0.00006	0.00006	0.00006								
TOTAL HPCDF	0.00008	0.00006	0.00006	0.00005								
OCDF	0.0001	0.00007	0.0001	0.0001			0.0001	0.0002				
TOTAL 2,3,7,8-TEQ	0.00047	0.04876	0.05236	0.01532	0.0005	0.0004	0.0026	0.0025	0.0004	0.0006	0.0009	0.0005

Office of Enforcement

CHAIN OF CUSTODY RECORD Pg 1 of 2

Curtis Bldg., [illegible] Walnut Sts.
Philadelphia, Pennsylvania 19106

PROJ. NO. 5303

PROJECT NAME: Sharon Westinghouse

SAMPLERS: (Signature) Joseph A. Carter

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Dioxin/Dibenzofuran	REMARKS
S01	8/2/94	1145		✓	S01	1	1	
	8/2/94	1810		✓	Blender Rinsate (amber)	2	2	
S04	8/2/94	1420		✓	S04	1	1	
S06	8/2/94	1510		✓	S06	1	1	
S07	8/2/94	1535		✓	S07	1	1	
S09	8/2/94	1630		✓	S09	1	1	
S15	8/3/94	1015		✓	S15	1	1	
S16	8/3/94	1030		✓	S16	1	1	
S17	8/3/94	1053		✓	S17	1	1	
S20	8/3/94	1200		✓	S20	1	1	
S24	8/3/94	1535		✓	S24	1	1	
S27	8/3/94	1645		✓	S27	1	1	
S28	8/3/94	1735		✓	S28	1	1	
S29	8/3/94	1800		✓	S29	1	1	
S30	8/3/94	1845		✓	S30	1	1	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Joseph A. Carter					
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
					AR300695

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Office of Enforcement

CHAIN OF CUSTODY RECORD

Pg 2 of 2

REGION 3
Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

PROJ. NO.	PROJECT NAME
5303	Sharon Westinghouse

SAMPLERS: (Signature) Joseph A. Carter

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Dioxin / Dibenzofuran	REMARKS
531	5/3/94	1615		✓	531	1	1	Please send analytical package to: Roy F Weston, Inc 5 Underwood Ct Delran, NJ 08075 Attn: Marian Murphy Please send results only to: Roy F. Weston, Inc 141 Waddles Run Rd Wheeling, WV 26003 Attn: Chris Van Gorder

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Joseph A. Carter					
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
				AR300696	

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